

COUNTY BOROUGH OF ST. HELENS



Annual Report
OF THE
Medical Officer of Health,
FOR THE YEAR 1934.

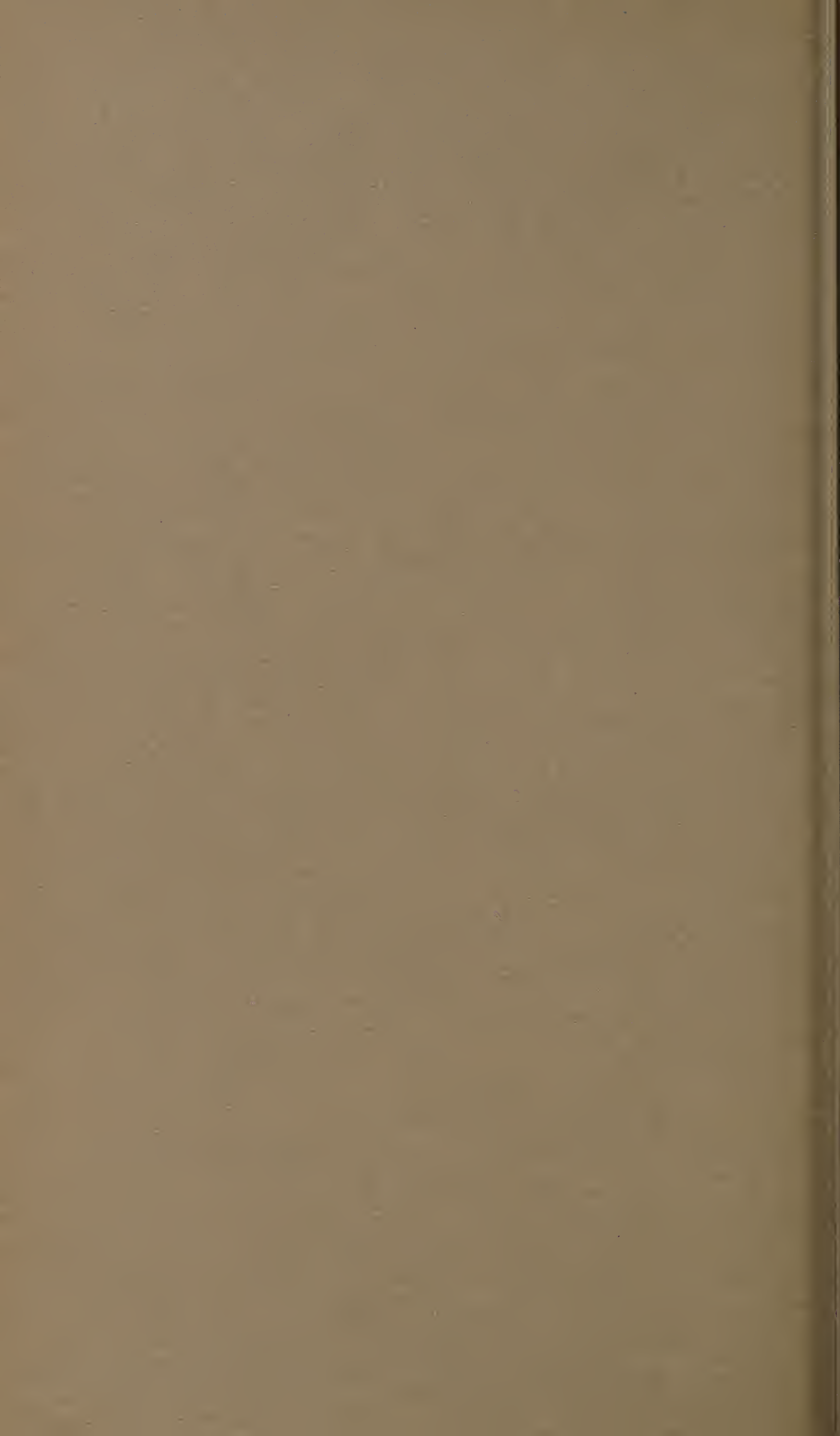
FRANK HAUXWELL, M.B., Ch.B., D.P.H.

Medical Officer of Health,
and School Medical Officer.

St. Helens :

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Health Committee.

Chairman :

ALDERMAN T. HAMBLETT, J.P.

Deputy-Chairman :

COUNCILLOR EVELYN PILKINGTON, C.B.E., J.P.

THE RIGHT WORSHIPFUL THE MAYOR,
(Councillor John O'Brien, J.P.)

ALDERMAN F. McCORMACK.

„ H. H. PEET, J.P.

COUNCILLOR N. BIRCH, J.P.

„ W. BURROWS, J.P.

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„ M. McFARLANE, J.P.

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„ J. THACKRAY, J.P.

„ T. WOODS.

Maternity and Child Welfare Committee

Chairman :

ALDERMAN T. HAMBLETT, J.P.

Deputy Chairman :

COUNCILLOR EVELYN PILKINGTON, C.B.E., J.P.

THE HEALTH COMMITTEE
together with the following co-opted members :
MRS. H. B. BATES, AND
MRS. B. MCGHIE.

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TO THE MAYOR, ALDERMEN AND COUNCILLORS OF
THE COUNTY BOROUGH OF ST. HELENS.

Mr. Mayor, Ladies and Gentlemen,

I have the honour to submit the 62nd Annual Report on the health of St. Helens, being the Report for the year ended 31st December, 1934.

With the extension of the Borough on 1st April, 1934, 666 acres were added to the area of the borough, and it is estimated that the population was increased by 1,003. The Registrar General's estimate of population for mid-year was 108,240, but owing to the fact that the extension only took place on 1st April and that therefore any increase due to that extension did not wholly relate to the entire year, the modified figure of 108,005 is taken for calculation of the various statistics based on population.

The year 1934 was a very healthy year. The death rate of 10.6 per 1,000 of the population and the infant mortality of 65.4 per 1,000 live births are the lowest ever recorded in the borough. Even when adjusted to allow for difference in age and sex distribution in the population, the death rate compares very favourably as shown in Table 2 with that of other county boroughs in Lancashire, only Blackpool, Southport and Bootle being lower. The infant mortality is the fifth lowest of the seventeen County Boroughs in Lancashire. The death rate for the whole of England and Wales for 1934 was 11.8 per 1,000 of the population, and the infant mortality 59 per 1,000 births.

In contrast with the previous year there was a marked reduction in the number of cases of measles and whooping cough, and there was no recrudescence of the small outbreaks of enteric fever, cerebro spinal fever or anterior poliomyelitis which occurred in 1933. The number of cases of scarlet fever and diphtheria, however, still remained high, and in the case of the latter not only was the incidence

higher than usual but the type of disease was more fatal. This led to the establishment early in 1935 of an immunisation clinic for inoculating children against this disease.

The most important improvements during the year were the scheme to establish a children's annexe to the Maternity and Child Welfare Hospital and the proposal to build a cubicle isolation block at the Isolation Hospital. The children's annexe will allow a much needed expansion of accommodation at the Maternity and Child Welfare Hospital for maternity cases, and the new cubicle block will give that measure of isolation so long required for the efficient segregation of the very varied types of disease admitted to the Isolation Hospital. A further improvement of the Maternity and Child Welfare Service has been the opening of an Ante-Natal Clinic in Parr.

Of other improvements which should be carried out, the most outstanding is the sewerage question. Owing to colliery subsidence this, no doubt, is a very difficult problem in St. Helens, but it is satisfactory to note that a beginning has now been made to tackle it.

Another most important improvement long overdue is the provision of a new central clinic and additional office accommodation for the department. The existing premises in both cases are hopelessly cramped and overcrowded, and the clinic premises contravene all modern ideals for treatment.

In connection with the Jubilee Celebrations this year it was considered it might be of interest to review the progress made in public health in St. Helens during the past 25 years. A special report dealing with this subject is printed in the Appendix.

I would also draw attention to the Special Report presented to the Maternity and Child Welfare Committee in December, dealing with the maternity services in St. Helens with special reference to the question of maternal mortality.

I take this opportunity of thanking members of the Council for the kindness and consideration shown to me in the conduct of my work and I have to record my hearty appreciation of the loyal and willing co-operation of all members of my staff.

I have the honour to be,

Your obedient Servant,

FRANK HAUXWELL.

July, 1935.

GENERAL STATISTICS.

Area (Acres)— (at 31st March, 1934)	7,284
(as extended on 1st April, 1934)	7,950
Estimated Population mid-year 1934	108,240
Number of inhabited houses (end of 1934) according to Rate Books	23,799
Rateable Value	£441,212
Product of a penny rate	£1,666

The Net Cost on the Rates of the various Health Services in St. Helens during the year ended the 31st March, 1935, as compared with the previous year is given below.

	Pence per £	
	1933-34.	1934-35
Isolation Hospital	3.876	3.954 [†]
Tuberculosis	6.986	6.658
Maternity and Child Welfare	8.872	7.608
Venereal Diseases	.408	.376
Food and Drugs Acts	.228	.246
Slaughterhouse and Cold Stores	.237	.340
Contagious Diseases of Animals	.029	.055
General Sanitary and Administrative Charges	6.451	5.511
Sewage Disposal	3.434	3.375
Public Conveniences	.519	.500
*Collection and Disposal of Refuse	16.109	16.312
*Blind Persons	3.015	3.569
Total Net Cost of Health Services	50.164	48.504

†Subject to audit.

*Under the control of the Cleansing Committee and the Blind Persons Act Committee respectively.

Matrons of Corporation Hospitals :

Edith Carder, Borough Isolation Hospital and Eccleston Hall Sanatorium.

Eva May Peters, St. Helens Maternity and Child Welfare Hospital.

Health Visitors and School Nurses :

Ethel Denman,	(1), (2), (3), (7)	Alice Happold,	(3), (7)
Mary Riding,	(3), (7)	Edith Curran,	(3), (7)
*Winifred Cowan,	(2), (3), (7)	Ellen R. McDonald,	(2), (3), (7)
Amy Coates,	(2), (3), (7)	Agnes MacDonald,	(2), (3), (7)
Emily Corrish,	(2), (3), (7)	Doris Parkinson,	(2), (3), (7)
Daisy C. Cruickshank,	(3), (7)	Elsie Worthington,	(2), (3), (7)
Nora Hogan,	(3), (7)	Amanda S. Hume,	(2), (3), (7)
Mary Corrish,	(3), (7)		

Orthopaedic Nurse :

Isabelle Marvin Corke (9)

Tuberculosis Nurse :

Grace Sumner (7)

Clerk Dispenser and Venereal Diseases Attendant :

Jas. McP. Hutton.

Venereal Diseases Nurse :

Florence Wilkinson (7)

- (1) Sanitary Inspector's Certificate of the Royal Sanitary Institute.
- (2) Health Visitor's Certificate of the Royal Sanitary Institute.
- (3) Certificate of the Central Midwives Board.
- (4) Sanitary Inspector's Certificate of the Liverpool University.
- (5) Certificate for Meat Inspection of the Royal Sanitary Institute.
- (6) Certificate for Meat Inspection of Liverpool University.
- (7) A trained Nurse.
- (8) Certificate for Sanitary Science of the Royal Sanitary Institute.
- (9) Certificate of Chartered Society of Masseuses, etc.
- (10) Diploma of the Institute of Sanitary Engineers.
- (11) Diploma of the Building Surveyors' Association.
- (12) Sanitary Inspector's Certificate of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board.
- (13) Smoke Inspector's Certificate of the Royal Sanitary Institute.

The following are part-time officers :—

District Medical Officers and Public Vaccinators :—H. B. Bates, L.S.A., L.M.S.S.A. ; J. S. Fox, M.B., C.M., M.R.C.S. ; P. J. O'Keeffe, L.R.C.P., L.R.C.S., L.R.F.P.S., L.M.

*Resigned during the year.

Vaccination Officer :—Alfred Griffin.

Physician to the X-ray Department, Tuberculosis Dispensary :
J. Unsworth, M.B., B.S., (Lond.).

Orthopaedic Surgeon :—B. L. McFarland, M.D. (Liverp.),
M.Ch. (Orth.), M.B., Ch.B., F.R.C.S. (Edin.).

Ophthalmic Surgeon :—E. Allan, M.B., Ch.B. (Edin.).

Obstetrician and Gynaecologist:—J. W. Burns, M.D. (Dublin),
B.A., M.B., B.Ch., B.A.O., F.R.C.S. (Edin.)

Public Analyst :—Herbert J. Evans, B.Sc., F.I.C., F.C.S.

Veterinary Inspector :—T. J. Kenny, M.R.C.V.S.

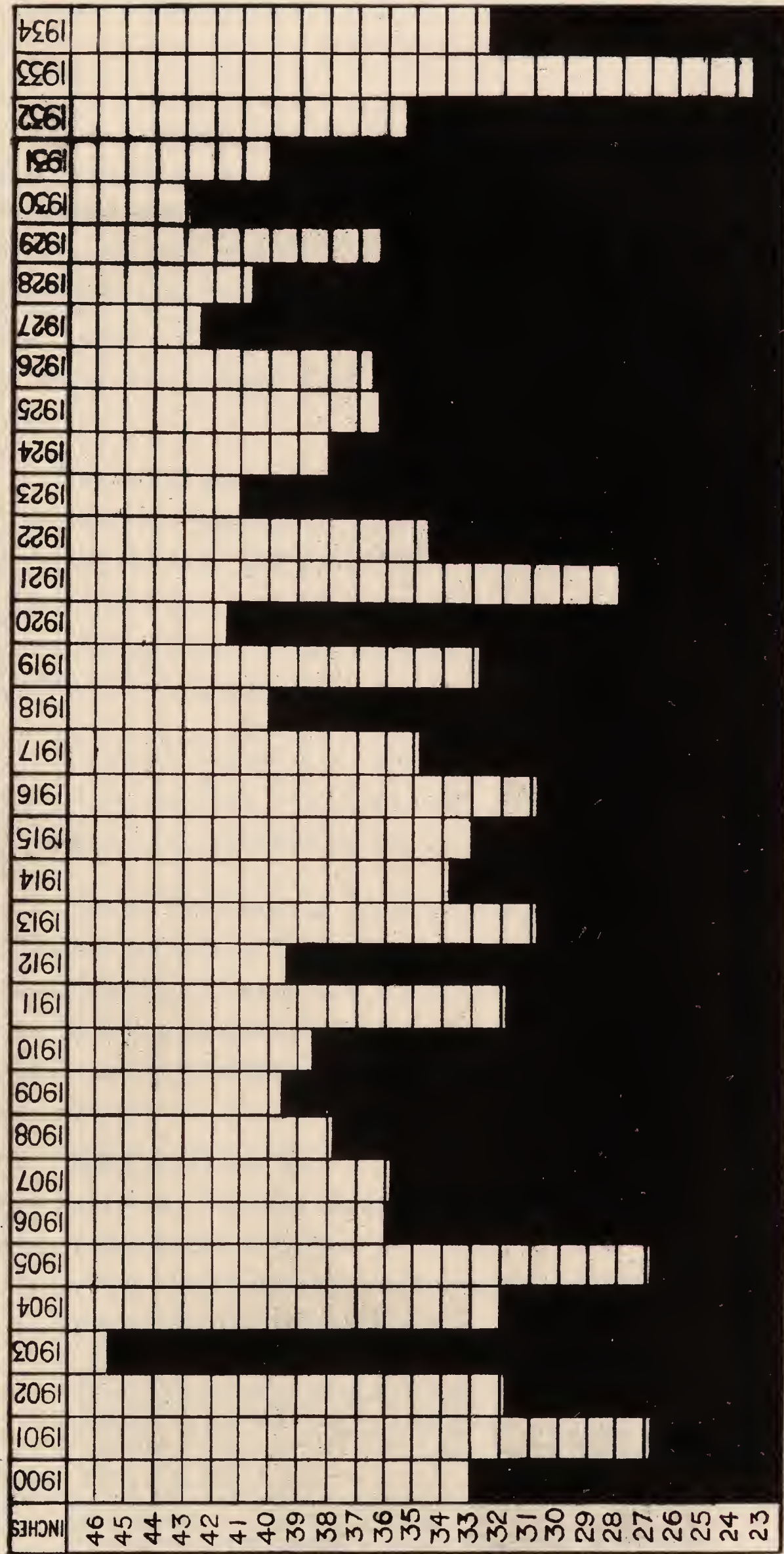
1.—NATURAL AND SOCIAL CONDITIONS OF THE AREA.

PHYSICAL FEATURES AND GENERAL CHARACTER.—St. Helens is situated 10 miles east of Liverpool and 20 miles west of Manchester, and lies on the southern fringe of the Lancashire coal fields. The area of the borough was extended on 1st April, 1934, by the inclusion of 452 acres of the Parish of Windle and 214 acres of the Parish of Eccleston. This brought the total area of the borough up to 7,950 acres. The added area is practically all agricultural. As a whole the borough is remarkable for the large number and extent of open spaces, and is well supplied with public parks and recreation grounds.

Geologically the soil consists of clay overlying coal measures, and owing to past mining activities some portions of the town are peculiarly susceptible to subsidence. This is particularly so in the Sutton and Derbyshire Hill districts.

SOCIAL CONDITIONS.—The chief industries of the town are coal mining and glass making.

TOTAL RAINFALL IN INCHES IN ST. HELENS SINCE 1900.





The average number of persons unemployed in St. Helens and registered at the Labour Exchange during 1934 (as shown by the figures taken on Monday of each week) was 7,620 men, 527 women, and 531 juveniles (total 8,678). The largest number of unemployed men and women was 9,450 in July and among juveniles 664 in April. The total for 1934 shows a decrease from the previous year when the average total number of unemployed persons was 10,032.

The total amount of domiciliary relief granted in St. Helens by the Public Assistance Committee during the year ended 31st March, 1935, was £88,515/10/5d., of which sum £29,949/10/3d. was granted to unemployed men and their families. The corresponding amounts granted in the previous year were £75,890/16/10d. and £25,213/11/3 respectively.

From St. Helens 397 men, 257 women and 165 children were admitted to the Poor Law Infirmary, and 174 men, 69 women and 17 children were admitted to the "House" during the year.

Under the National Health Insurance Act, the total number of insured persons in St. Helens on 1st October, 1934, was 42,112, comprising 32,277 men and 9,835 women, or approximately 39% of the total population. The corresponding figures for 1933 were 34,153 men and 9,880 women.

METEOROLOGY.—The total rainfall for the year, as measured at the Victoria Park Observatory, was 32.49 inches. The amount of rainfall recorded at Eccleston Hill Waterworks during the year was 30.34 inches. The annual rainfall at Victoria Park since 1900 is shown in Table 1.

The highest temperature in the shade during the year was on the 11th July, when it reached 87.6°F, and the lowest was 24.6°F on the 29th January.

The prevailing wind during the year was W.

The special gauge maintained in the centre of the town for the collection and measurement of the amount of atmospheric pollution showed the total solids deposited in St. Helens from the atmosphere during the year ending the 31st March, 1935 to be 17,234 metric tons per 100 square kilometres or approximately 1,537 pounds per acre.

II.—VITAL STATISTICS.

EXTRACTS FROM VITAL STATISTICS OF THE YEAR :

	M.	F.	Total.
Live Births:—Legitimate.....	1,023	995	2,018
Illegitimate	22	25	47
Totals	1,045	1,020	2,065

Birth Rate per 1,000 of the estimated resident population.....19.1

Still Births :—M. 75, F. 41 ; Total : 116.

Rate per 1,000 total (live and still) births.....53.2

Deaths :—M. 620, F. 528 ; Total : 1,148.

Death Rate per 1,000 of the estimated resident population.....10.6

Death Rate per 1,000 adjusted to correspond for age and sex
distribution with England and Wales as a whole 13.0

Percentage of total deaths occurring in public institutions.....40%

Number of women dying from diseases and accidents of pregnancy
and child birth :—

	Deaths	Rate per 1,000 total (live and still) births.
From puerperal sepsis	4	1.83
From other puerperal causes	7	3.21
Totals	11	5.04

Deaths of infants under one year of age :—

	M.	F.	Total.
Legitimate	66	64	130
Illegitimate	3	2	5
Totals	69	66	135

Death Rate of Infants under one year of age :—

All infants per 1,000 live births	65.4
Legitimate infants per 1,000 legitimate live births	64.4
Illegitimate infants per 1,000 illegitimate live births	106.4

Deaths from Measles (all ages)	10
„ Whooping Cough (all ages)	1
„ Diarrhœa (under 2 years of age)	9
„ Tuberculosis	95
Zymotic Death Rate	0.38

Table 2.

COUNTY BOROUGH	Estimated civil population	Birth Rate per 1,000 population	Death Rate (adjusted for age and sex) per 1,000 population	Infant Mortality per 1,000 live births	Maternal Mortality per 1,000 total (live and still) births	Tuber- culosis Death Rate (all forms) per 100,000 populaton
England and Wales	40,467,000	14.8	11.8	59	4.4	76
121 County Boroughs and Great Towns	20,815,634	14.7	11.8	63	*	*
Barrow-in-Furness	64,750	13.9	14.0	97	12.5	83
Blackburn	119,880	12.0	13.6	57	5.9	63
Blackpool	116,550	10.5	11.9	59	4.7	70
Bolton	176,200	12.5	13.0	53	3.4	63
Bootle	76,800	21.4	12.5	77	4.3	137
Burnley	94,300	11.8	14.6	70	14.6	76
Bury	60,100	12.3	14.4	84	10.2	83
Liverpool	866,013	20.3	15.0	81	2.8	115
Manchester.....	773,593	14.8	14.0	69	4.2	114
Oldham	135,200	12.6	16.2	70	7.0	80
Preston	117,490	14.2	15.2	69	11.3	84
Rochdale	94,450	12.4	15.3	78	5.6	71
ST. HELENS	108,240	19.1	13.0	65	5.0	88
Salford	213,850	14.7	16.0	93	6.6	106
Southport	79,100	10.9	11.2	46	3.3	59
Warrington	80,950	17.3	13.9	74	3.5	84
Wigan	84,750	17.3	14.9	67	3.9	99

*Rates not available.

Table 2 shows the main vital statistics of St. Helens in comparison with those of the other County Boroughs in Lancashire as well as with those for England and Wales and the 121 County Boroughs and Great Towns in England and Wales.

From this table it will be seen that of the 17 County Boroughs in Lancashire, St. Helens has the third highest birth rate, the fifth lowest rate of infant mortality, and shares with Bolton the position of having the fourth lowest death rate. It is, however, sixth highest in the tuberculosis death rate and ninth highest in the rate of maternal mortality.

Table 3 gives a summary of the vital statistics for the past 50 years.

POPULATION.—According to the Registrar General's estimate, the mid-1934 population of St. Helens as now constituted was 108,240. As, however, the figure of population for the added area did not apply throughout the entire year, the Registrar General has also given a working population figure of 108,005 for the purpose of calculation of the various vital statistics, and it is on this latter figure that these statistics have been calculated for this Report.

The natural increase in population during 1934, i.e., the excess of the number of births over deaths, was 917, as compared with a natural increase of 436 in 1933, 933 in 1932 and 824 in 1931.

BIRTHS.—The number of births registered in St. Helens during 1934 was 2,153. 26 births occurring in other districts were transferable to St. Helens and 114 occurring in the borough were transferred to other districts, making a total of 2,065 births belonging to the borough. The birth rate for the year was 19.1 per 1,000 of the population as compared with 18.0 for the previous year. The rate for England and Wales during 1934 was 14.8 and for the 121 County Boroughs and Great Towns was 14.7 per 1,000.

Table 3.

Statistics for St. Helens since 1884.

YEAR	Population	Birth Rate	Crude Death Rate	Zymotic Death Rate	Infant Mortality Rate	Rate of Persons Married	DEATHS FROM							
							Small Pox	Measles	Scarlet Fever	Typhoid Fever	Typhus Fever	Diarrhoea	Whooping Cough	Diphtheria
1884	61,584	42.50	24.16	5.3	173	—	0	131	16	33	2	131	9	11
1885	62,932	39.93	23.32	3.5	168	—	0	81	13	7	1	56	53	11
1886	64,311	40.70	22.46	5.2	172	—	0	102	34	28	0	122	41	10
1887	65,718	37.00	21.69	3.9	163	—	0	53	35	34	0	101	28	11
1888	67,158	39.20	19.80	3.1	151	—	0	38	11	22	0	65	61	21
1889	68,628	39.86	23.50	4.18	177	—	0	78	3	81	1	85	15	29
1890	70,132	38.90	25.43	5.3	170	—	0	19	181	24	1	74	68	13
1891	71,509	40.80	26.02	3.0	180	—	0	54	24	26	0	78	29	9
1892	72,399	40.2	21.0	2.64	147	—	1	23	18	25	0	84	31	12
1893	73,576	41.3	24.4	5.4	196	—	5	135	6	52	0	168	19	16
1894	*76,112	37.8	18.3	2.21	161	14.6	0	21	14	26	2	38	61	10
1895	77,288	40.9	21.8	3.10	181	13.0	1	54	9	59	0	101	14	8
1896	78,482	38.7	20.9	3.73	177	13.2	0	38	59	40	0	63	78	17
1897	79,694	40.0	21.8	4.3	181	14.2	0	87	44	33	0	133	33	20
1898	80,926	40.3	19.9	3.2	172	14.2	0	17	24	30	0	140	34	16
1899	82,176	38.3	20.4	2.9	157	13.0	0	21	8	43	0	114	41	15
1900	83,445	37.1	22.8	3.2	188	13.0	0	59	25	19	0	91	56	19
1901	84,734	36.9	19.7	2.56	175	13.9	0	7	29	34	0	95	17	3
1902	86,043	37.4	19.7	2.60	167	11.4	0	59	52	25	0	50	18	20
1903	87,372	39.1	17.5	1.72	138	13.0	0	1	26	18	0	53	30	23
1904	88,722	37.4	20.9	3.96	174	12.9	3	131	17	13	0	120	49	22
1905	89,843	36.1	17.2	1.88	132	11.7	0	41	16	2	0	66	26	18
1906	91,153	33.9	17.3	1.79	159	11.9	0	10	4	18	0	105	5	22
1907	92,476	34.1	18.3	2.87	155	13.6	0	145	10	12	0	36	52	11
1908	93,812	35.2	16.0	1.32	122	12.3	0	0	29	12	0	59	7	17
1909	95,161	32.0	18.5	3.5	149	12.7	0	188	33	13	0	27	62	12
1910	96,523	32.7	14.5	1.26	121	13.1	1	15	22	10	0	51	16	7
1911	96,870	33.5	18.3	3.03	158	12.7	0	69	13	22	0	143	39	8
1912	98,159	32.0	15.5	1.76	124	14.0	0	62	19	8	0	49	46	19
1913	99,460	32.2	18.9	3.74	155	14.6	0	189	26	4	0	120	18	15
1914	100,775	33.3	17.1	1.62	138	14.1	0	25	5	4	0	98	24	8
1915†	92,240	32.1	19.3	3.1	129	16.1	0	126	12	6	0	78	40	32
1916†	90,000	26.5	16.8	1.95	108	14.9	0	2	30	2	0	64	34	85
1917†	90,600	22.0	16.5	2.26	123	10.6	0	65	20	2	0	37	19	79
1918†	90,600	24.1	21.2	2.45	126	11.4	0	26	24	0	0	48	24	100
1919†	100,805	25.5	15.0	0.82	117	17.5	0	5	9	2	0	35	7	25
1920	104,822	31.8	13.5	1.2	113	16.8	0	56	7	0	0	44	7	13
1921	104,900	29.1	12.6	0.83	103	17.2	0	7	5	0	0	63	24	5
1922	106,400	26.4	13.4	0.93	115	11.5	0	60	4	2	0	28	3	5
1923	107,100	24.4	11.9	0.39	91	12.8	0	0	4	1	0	24	10	8
1924	108,700	24.1	12.0	0.68	103	12.7	0	29	1	2	4	36	11	4
1925	109,600	23.9	12.0	0.85	100	12.0	0	17	7	3	0	35	33	6
1926	110,000	23.2	12.0	0.62	102	10.2	0	27	1	0	0	43	4	6
1927	113,100	20.8	11.4	0.82	88	11.5	0	60	2	0	0	26	5	7
1928	110,500	21.8	12.0	0.67	98	11.8	0	15	5	1	0	29	21	10
1929	109,200	20.7	14.6	0.91	114	13.0	0	49	6	1	0	23	13	11
1930	109,200	21.5	11.4	0.28	80	13.6	0	7	2	0	0	4	8	4
1931	108,300	20.1	12.5	0.48	88	13.6	0	30	0	0	0	21	0	7
1932	107,600	20.1	11.4	0.22	89	13.9	0	1	1	0	0	26	4	0
1933	107,600	18.0	14.0	0.83	116	13.4	0	12	2	3	0	18	52	8
1934	*108,240	19.1	10.6	0.38	65	13.6	0	10	2	1	0	19	1	18

† Estimated civil population.

* Borough extended.

The following table shows the birth rate and the marriage rate for St. Helens for 1934 in comparison with the rates for quinquennial periods since 1896.

Period.	Birth Rate. per 1,000 of the population.	Marriage Rate.
1896-1900	37.0	13.5
1901-1905	33.5	12.7
1906-1910	37.3	13.5
1911-1915	32.5	14.3
1916-1920	25.9	14.2
1921-1925	25.5	13.2
1926-1930	21.6	12.0
1931	20.1	13.6
1932	20.1	13.9
1933	18.0	13.4
1934	19.1	13.6

In 1934 the male births numbered 1,045 and the female 1,020, being a proportion of 1,025 male to 1,000 female children born.

Illegitimate births were 2.3% of the total, being the same percentage as in the previous year. Table 4 gives the illegitimate birth rate since 1915.

Table 7 shows the birth rate for St. Helens since 1880 and the figures for England and Wales for the same period.

MARRIAGES.—The number of marriages during the year was 733, giving a rate of persons married of 13.6 per 1,000 of the population. Table 5 shows the rate for past years.

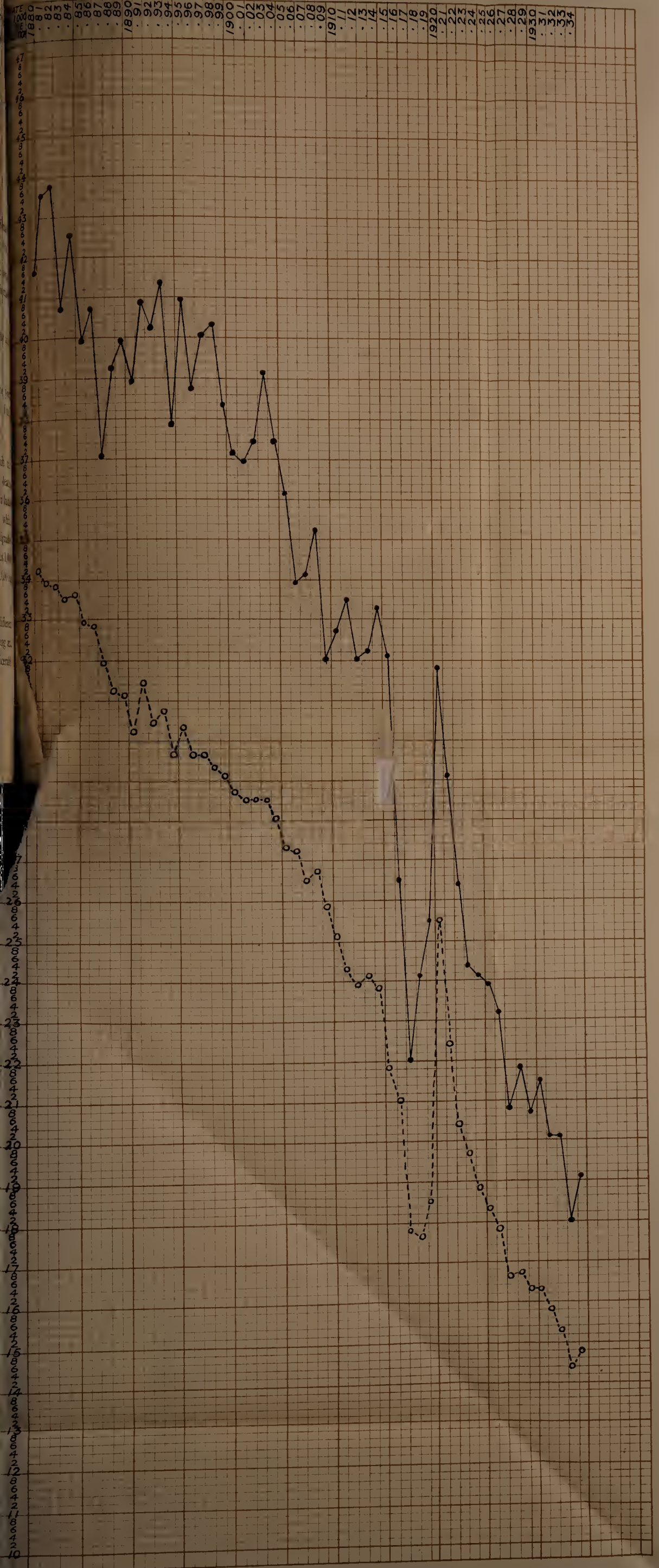
DEATHS.—The number of deaths occurring within the borough during the year was 1,106. This total includes 160 deaths in St. Helens of persons usually resident in other areas, but excludes 202 deaths of persons usually resident within the borough which occurred in other areas, so that the actual number of deaths assignable to St. Helens is 1,148. This gives a crude death rate of 10.6 per 1,000 of the resident population, compared with a rate of 14.0 per 1,000 for 1933.

It is well known, however, that the population of different districts vary considerably in regard to the proportion of young and old and males and females, and as these factors have considerable

TABLE 7.

BIRTH RATE -

ST. HELENS and ENGLAND and WALES, 1880-1934



St. Helens —●—

England and Wales ○- - - -

TABLE 7. BIRTH RATE -

1911-1912 and 1913-1914

1911-1912 and 1913-1914



Table 4.
Number of illegitimate births.

Years	...	...	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Number of illegitimate births			92	78	78	112	127	131	136	81	76	70	79	68	80	62	58	72	59	44	44	47
Proportion per 1,000 population		...	0.90	0.79	0.79	1.1	1.2	1.2	1.3	0.7	0.7	0.64	0.72	0.61	0.7	0.56	0.53	0.66	0.54	0.41	0.41	0.44

Table 5.
Number of marriages.

Years	...	...	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Number of Marriages			745	568	536	579	924	882	903	612	686	692	661	565	653	653	710	740	738	750	723	733
Marriage rate per 1,000 population		...	14.5	11.58	10.60	11.4	17.5	16.8	17.2	11.5	12.8	12.7	12.0	10.2	11.5	11.8	13.0	13.6	13.6	13.9	13.4	13.6

influence on mortality, their death rates are not truly comparable unless allowance is made for these variations. To overcome this difficulty the Registrar General has this year supplied a “comparability factor” for each area by the use of which the crude death rate (i.e., the rate for the area based on the resident population) can be “adjusted” to a figure which represents the rate of mortality that would have occurred if the age and sex distribution of the area had been the same as that of England and Wales as a whole. By this means a more exact comparison can be made between the mortality of individual districts and with England and Wales as a whole. The comparability factor for St. Helens is 1.23, and when this is applied to the crude death rate of 10.6 per 1,000 of the resident population the “adjusted” death rate becomes 13.0 per 1,000. The death rate for England and Wales as a whole for 1934 was 11.8 per 1,000. A comparison of the adjusted death rate for St. Helens with that for other County Boroughs in Lancashire is shown in Table 2.

Though yearly variations in age and sex distribution also occur locally, these are never very great, so that the crude death rate can be used for yearly local comparisons and the trend of the death rate in St. Helens since 1881 is seen in the following statement :—

Crude Death Rate per 1,000 of the population.						
Period.						
1881-85	.....	.....	.....	.....	.....	23.2
1886-90	.....	.....	.....	.....	.....	22.5
1891-95	.....	.....	.....	.....	.....	21.8
1896-1900	.....	.....	.....	.....	.....	20.3
1901-05	.....	.....	.....	.....	.....	19.0
1906-10	.....	.....	.....	.....	.....	16.9
1911-15	.....	.....	.....	.....	.....	17.8
1916-20	.....	.....	.....	.....	.....	16.6
1921-25	.....	.....	.....	.....	.....	12.3
1926-30	.....	.....	.....	.....	.....	12.3
1931	.....	.....	.....	.....	.....	12.5
1932	.....	.....	.....	.....	.....	11.4
1933	.....	.....	.....	.....	.....	14.0
1934	.....	.....	.....	.....	.....	10.6

Seasonal Deaths.—The following statement gives the number of St. Helens deaths in each quarter of the year, with the death rate for each quarter, and the death rate for England and Wales for the same periods.

				Death rate per 1,000 of population.		
				St. Helens (Crude)	(Adjusted)	England & Wales
First Quarter	.....	.....	287	10.6	13.0	14.6
Second Quarter	.....	.....	321	11.9	14.6	11.8
Third Quarter	.....	.....	265	9.8	12.1	9.6
Fourth Quarter	.....	.....	275	10.2	12.5	11.2

Coroner's Inquests.—During the year, 116 deaths were reported to the Coroner. In 61 of these the Coroner was able without an inquest to issue a certificate attributing the death to natural causes. In one instance the Coroner adjourned the inquest till 1935, and, in 54 instances where inquests were held, the deaths were recorded as attributable to :—

Colliery accidents	.....	.....	.....	.....	.....	3
Street accidents	.....	.....	.....	.....	.....	13
Accidents in works	.....	.....	.....	.....	.....	5
Drowning	.....	.....	.....	.....	.....	4
Poisoning	.....	.....	.....	.....	.....	3
Scalds and burns	.....	.....	.....	.....	.....	2
Other deaths from violence	.....	.....	.....	.....	.....	13
Natural causes	.....	.....	.....	.....	.....	4
Other causes	.....	.....	.....	.....	.....	7
						54

Causes of Death.—Figures relating to the causes of and ages at death during the year are given in Table 9.

Zymotic Death Rate.—The number of deaths caused by the “ seven principal epidemic diseases ” during 1934 was 41, giving a zymotic death rate of 0.38 per 1,000 of the population as compared with 0.83 during 1933. Compared with the previous year there was a considerable increase in the number of deaths from diphtheria but a marked decrease in the deaths from whooping cough.

Table 9.
Causes of, and age at, death during 1934.

Causes of Death	Sex	All Ages	At Ages											7+
			0-1	1—	2—	5—	15—	25—	35—	45—	55—	65—		
All Causes	M F	620 528	69 66	22 10	16 12	29 23	22 25	28 34	37 38	87 46	99 80	126 106		
Typhoid and paratyphoid fevers	M F	— 1	— —	— —	— —	— —	— 1	— —	— —	— —	— —	— —		
Measles	M F	4 6	1 1	2 3	1 1	— 1	— —	— —	— —	— —	— —	— —		
Scarlet fever	M F	2 —	— —	— —	1 —	1 —	— —	— —	— —	— —	— —	— —		
Whooping cough	M F	— 1	— 1	— —	— —	— —	— —	— —	— —	— —	— —	— —		
Diphtheria	M F	11 7	— —	1 —	5 4	5 1	— —	— 1	— 1	— —	— —	— —		
Influenza	M F	12 9	— 3	— —	— —	1 —	— —	— 1	2 —	2 1	3 3	4 1		
Encephalitis lethargica	M F	1 1	— —	— —	— —	— —	— —	— —	— 1	1 —	— —	— —		
Cerebro-spinal fever	M F	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —		
Tuberculosis of respiratory system	M F	46 26	— —	1 —	— —	— —	9 10	8 10	6 5	16 1	3 —	1 —		
Other tuberculous diseases	M F	15 8	— 1	5 2	2 1	4 2	2 —	1 —	— 2	— —	1 —	— —		
Syphilis	M F	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —	— —		
General paralysis of the insane, tabes dorsalis	M F	2 —	— —	— —	— —	— —	— —	— —	— —	1 —	1 —	— —		
Cancer, Malignant disease	M F	61 60	— —	— —	— —	1 1	— —	3 2	1 3	5 11	27 13	19 18		
Diabetes	M F	2 12	— —	— —	— —	— 1	1 1	— —	— —	— 2	1 3	— 5		
Cerebral haemorrhage, etc.	M F	29 39	— —	— 1	— —	— —	— —	— —	— 2	1 4	6 9	15 13		
Heart Disease	M F	116 85	— —	— —	— —	2 2	3 2	4 5	4 5	14 8	25 26	42 22		
Aneurysm	M F	1 —	— —	— —	— —	— —	— —	— —	— —	1 —	— —	— —		
Other circulatory diseases	M F	28 15	— —	— —	— —	— —	— —	— —	— —	4 —	6 3	11 7		
Bronchitis	M F	36 19	5 3	1 —	— —	— —	— —	1 —	1 1	4 1	4 2	9 4		
Pneumonia (all forms)	M F	39 37	3 10	6 3	1 3	5 3	1 —	— 1	3 2	8 4	5 4	4 4		
Other respiratory diseases	M F	9 2	— —	1 —	— —	— 1	— 1	— —	1 —	2 —	— —	3 —		
Peptic ulcer	M F	1 3	— —	— —	— —	— 1	— —	— —	— —	1 —	— —	— 1		
Diarrhœa, etc.	M F	14 5	5 1	3 —	2 —	— 2	— —	1 —	— —	1 —	1 —	— 1		
Appendicitis	M F	4 4	— —	— —	— —	1 —	2 2	— —	— —	1 —	— 2	— —		
Cirrhosis of liver	M F	3 1	— —	— —	— —	— —	— —	— —	— 1	— —	2 —	1 —		
Other diseases of liver, etc.	M F	2 10	— —	— —	— —	— 1	— —	— 1	— 1	— 3	1 1	— 1		
Other digestive diseases	M F	11 13	2 2	1 —	— —	1 1	— 1	— 1	1 1	3 1	1 3	2 3		

Table 9—continued.

Causes of Death	Sex	All	At Ages										
		Ages	0-1	1-	2-	5-	15-	25-	35-	45-	55-	65-	75-
Acute and chronic nephritis	M	6	—	—	—	—	—	1	2	—	—	1	2
	F	16	—	—	1	1	1	—	3	2	1	5	2
Puerperal Sepsis	F	4	—	—	—	—	—	3	1	—	—	—	—
Other puerperal causes	F	7	—	—	—	—	1	4	2	—	—	—	—
Congenital debility, premature birth, malformations, etc.	M	48	47	—	—	1	—	—	—	—	—	—	—
	F	36	36	—	—	—	—	—	—	—	—	—	—
Senility	M	18	—	—	—	—	—	—	—	—	—	4	14
	F	31	—	—	—	—	—	—	—	—	—	10	21
Suicide.....	M	10	—	—	—	—	—	1	4	2	1	1	1
	F	1	—	—	—	—	—	1	—	—	—	—	—
Other violence	M	28	—	—	2	2	3	3	7	8	1	—	2
	F	18	1	—	—	3	1	—	1	2	2	3	5
Other defined diseases	M	58	6	1	2	5	1	4	5	11	9	9	5
	F	44	6	1	2	2	4	4	6	5	7	5	2
Causes ill-defined or unknown	M	3	—	—	—	—	—	1	—	1	1	—	—
	F	7	1	—	—	—	—	—	—	1	1	3	1
Totals		1148	135	32	28	52	47	62	75	133	179	232	173

The causes of these deaths during 1934 were as follows :—

Diarrhœa and enteritis (under 2 years)	9
Whooping Cough	1
Measles	10
Scarlet Fever	2
Diphtheria (including membranous croup)	18
Fever (enteric, typhus, and simple continued fever)	1
Smallpox	0

Table 3 shows the figures since 1884.

Deaths from Tuberculosis.—Tuberculosis was the cause of 95 deaths during the year—that is 8.28% of all deaths belonging to the borough. Of these deaths, 72 were attributable to tuberculosis of the lungs and 23 to other forms of tuberculosis. The ages at which these deaths occurred are shown in Table 9.

Malignant Diseases.—The deaths from these diseases during the past four years were as follows :—

AGE						1931	1932	1933	1934
Under 1 year	.....	.....	.....	.....	.....	—	—	—	—
1—2 years	.....	.....	.....	.....	.....	—	—	—	—
2—5	„	.....	.....	.....	.....	—	—	—	—
5—15	„	.....	.....	.....	.....	—	—	—	2
15—25	„	.....	.....	.....	.....	—	—	—	—
25—35	„	.....	.....	.....	.....	1	5	2	5
35—45	„	.....	.....	.....	.....	8	6	12	4
45—55	„	.....	.....	.....	.....	29	19	30	16
55—65	„	.....	.....	.....	.....	32	45	29	40
65—75	„	.....	.....	.....	.....	44	41	43	37
75 and over	.....	.....	.....	.....	.....	7	12	15	17
Totals						121	128	131	121
Percentage of the total deaths						8.94	10.43	8.72	10.54
Death rate per 1,000 of population						1.12	1.19	1.22	1.12
Death rate per 1,000 of population, England and Wales						1.48	1.51	1.53	1.56

There would appear to be no relationship between the incidence of malignant diseases and industrial processes in St. Helens.

Other causes of death.—The following extract from Table 9 shows some of the other principal causes of death :—

	Number	Percentage of Total Deaths.
Pneumonia (all forms)	76	6.62
Bronchitis and other Respiratory Diseases	66	5.75
Influenza	21	1.83
Heart Disease	201	17.51
Cerebral Haemorrhage, etc.	68	5.92
Suicide and other deaths from violence	57	4.97

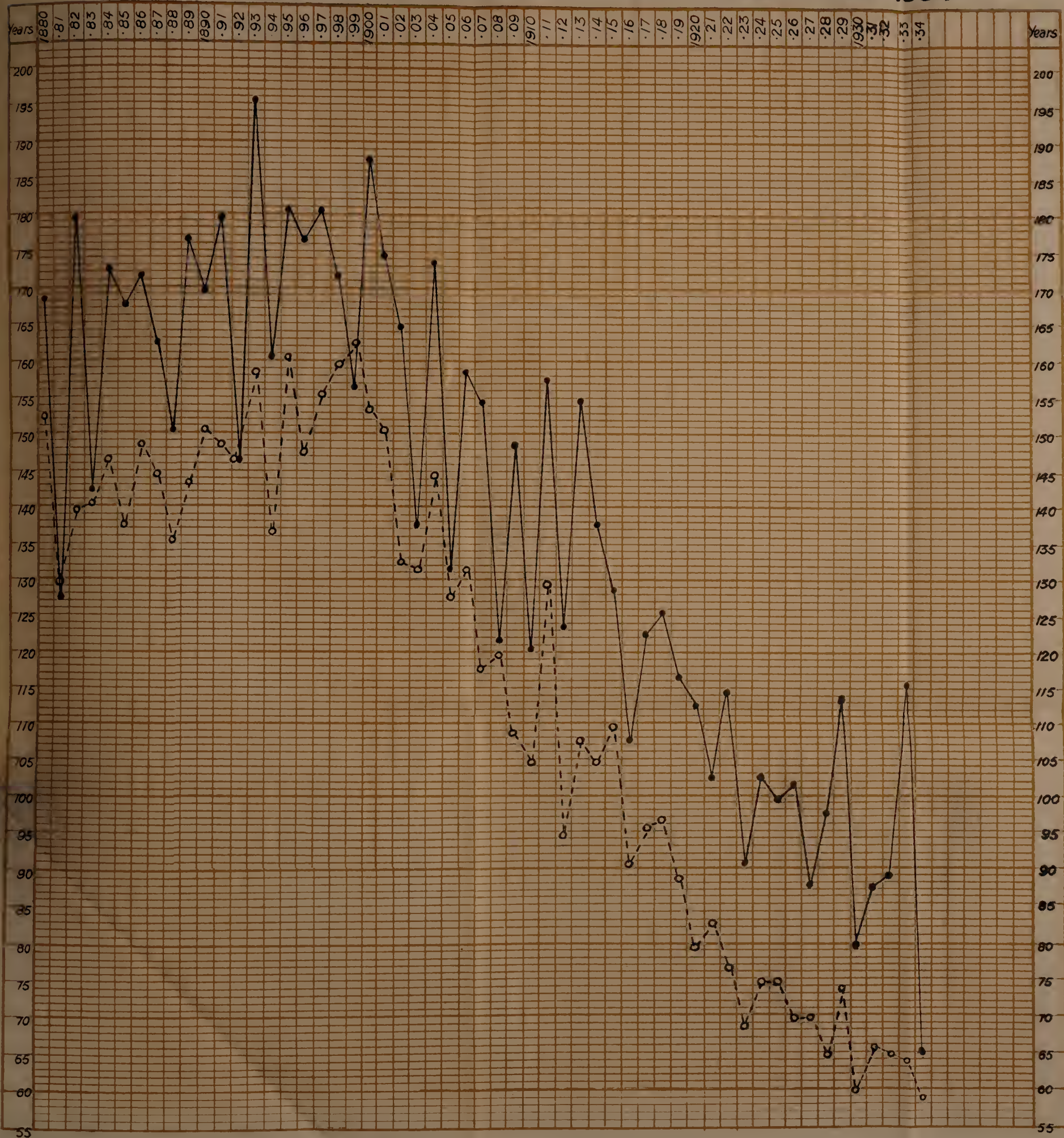
Infant Mortality.—During 1934 there were 135 deaths of children under one year of age. This corresponds to an infant mortality rate of 65.4 per 1,000 births. The infant death rate for 1933 was 115.5.

Further reference to this subject is made in the Maternity and Child Welfare Section.

Table 10 shows the infant death rate for St. Helens since 1880, and the figures for England and Wales for the same period.

Table 10.

INFANT MORTALITY RATE, ST HELENS AND ENGLAND AND WALES - 1880-1934



St. Helens —●— England & Wales ○---

III.—INFECTIOUS DISEASES.

The following are the infectious diseases compulsorily notifiable to the Medical Officer of Health in St. Helens :—

Smallpox	Puerperal Fever
Scarlet Fever	Puerperal Pyrexia
Diphtheria and Membranous	Cerebro Spinal Fever
Croup	Acute Poliomyelitis
Enteric Fever	Acute Polio Encephalitis
Typhus Fever	Acute Encephalitis Lethargica
Relapsing Fever	Ophthalmia Neonatorum
Continued Fever	Erysipelas
Dysentery	Malaria
*Pneumonia	†Measles and German Measles
Cholera	†Whooping Cough
Plague	Tuberculosis (all forms)

**Acute Primary Pneumonia and Acute Influenzal Pneumonia.*

†Notification by medical practitioner is not required if the disease “has occurred in the same family or institution and been notified within the period of two months immediately preceding the date on which he first becomes aware of a further case.”

Table 11 shows the total number of cases notified during the year, the total number of deaths which occurred, and the numbers admitted to the Corporation Hospitals.

Table 12 gives the age distribution of the cases notified, and Table 9 the age distribution of the deaths which occurred. The number of cases notified during each week of the year is shown in Table 13, and the number of notifications each year during the past 10 years is seen in Table 14.

Table 13.

Infectious Diseases.—Number of cases of Infectious Diseases notified each week in 1934.

Week ending	Smallpox	Scarlet Fever	Diphtheria	Measles	Whooping Cough	Enteric Fever	Dysentery	Erysipelas	Pneumonia	Typhus Fever	Puerperal Fever	Puerperal Pyrexia	Ophthalmia Neonatorum	Poliomyelitis	Encephalitis Lethargica	Cerebro Spinal Fever
n. 6	—	19	—	235	—	—	—	1	16	—	—	—	1	—	—	—
13	—	9	4	185	—	—	—	2	6	—	—	—	—	—	—	—
20	—	9	4	139	—	—	—	2	2	—	—	—	—	—	—	—
27	—	6	5	108	—	—	—	—	3	—	1	—	—	—	—	—
3b. 3	—	12	9	77	—	—	—	6	4	—	—	—	—	—	—	—
10	—	8	2	47	—	—	—	2	3	—	—	—	—	—	—	—
17	—	8	4	42	—	—	—	—	7	—	—	1	—	—	—	—
24	—	10	5	18	—	—	—	1	7	—	—	—	1	—	—	—
ar. 3	—	2	5	39	—	—	—	2	8	—	1	1	—	—	—	—
10	—	7	1	24	—	—	—	2	4	—	1	1	—	—	—	—
17	—	7	3	14	—	—	—	1	8	—	—	—	1	—	—	—
24	—	5	5	12	—	—	—	2	3	—	—	—	—	—	—	—
31	—	6	4	18	1	—	—	2	2	—	—	—	—	—	—	—
7b. 7	—	—	4	6	1	—	—	2	6	—	—	—	—	—	—	—
14	—	2	8	8	1	—	—	1	3	—	—	1	—	—	—	—
21	—	4	2	3	1	—	1	2	4	—	—	—	1	—	—	—
28	—	2	3	4	1	—	—	1	5	—	—	1	—	—	—	—
ay 5	—	3	3	5	—	—	—	4	8	—	—	—	—	—	—	—
12	—	3	8	4	1	—	—	—	7	—	—	—	—	—	—	—
19	—	7	5	—	3	1	—	1	1	—	—	—	—	—	—	—
26	—	4	5	4	—	—	—	1	3	—	—	—	—	—	—	—
ne 2	—	—	4	1	6	—	—	—	12	—	—	2	1	—	—	—
9	—	3	3	1	2	—	—	1	3	—	3	3	—	—	1	—
16	—	7	4	7	—	—	—	3	8	—	—	—	—	—	—	—
23	—	4	13	4	1	—	—	3	7	—	—	—	—	—	—	—
30	—	6	6	6	—	—	—	2	3	—	—	1	—	—	—	—
ly 7	—	6	5	1	1	—	—	1	1	—	—	—	—	—	—	—
14	—	2	1	2	—	—	—	2	4	—	—	—	—	—	—	—
21	—	2	6	9	1	—	—	—	6	—	—	—	—	—	—	—
28	—	2	—	7	—	—	—	1	5	—	1	—	—	—	—	—
ug. 4	—	6	3	3	3	—	—	—	1	—	—	—	—	—	—	—
11	—	7	4	7	—	—	—	1	2	—	—	—	—	—	—	—
18	—	4	4	2	2	—	—	—	—	—	—	—	—	—	—	—
25	—	2	3	4	—	—	—	—	3	—	—	—	1	—	—	—
pt. 1	—	6	4	2	—	—	—	3	2	—	—	1	—	—	—	—
8	—	8	2	—	2	—	—	2	6	—	—	—	—	—	—	—
15	—	6	4	3	1	—	—	4	8	—	—	—	—	—	—	—
22	—	7	3	9	4	—	—	1	3	—	—	—	—	—	—	—
29	—	3	2	2	3	—	—	1	1	—	—	1	—	—	—	—
ct. 6	—	6	6	1	2	—	—	—	1	—	1	1	—	—	—	—
13	—	6	4	3	—	—	—	—	5	—	1	—	—	—	—	—
20	—	6	4	7	6	1	—	3	4	—	—	—	—	—	—	—
27	—	4	4	10	11	—	—	—	2	—	—	1	—	—	—	—
ov. 3	—	5	2	12	9	—	—	—	3	—	—	—	—	—	—	—
10	—	6	2	22	19	—	—	4	6	—	—	2	—	—	—	—
17	—	7	3	8	16	—	—	3	2	—	—	—	—	—	—	—
24	—	7	5	25	13	—	—	1	5	—	1	—	—	—	—	—
ec. 1	—	4	3	4	19	—	—	2	8	—	—	2	—	—	—	—
8	—	3	8	4	13	—	—	—	5	—	—	—	—	—	—	—
15	—	11	12	8	14	—	—	2	—	—	—	—	—	—	—	—
22	—	6	11	5	17	—	—	—	1	—	—	—	1	—	—	—
29	—	1	7	6	11	—	—	2	7	—	—	—	—	—	—	—
total	—	286	231	1177	185	2	1	77	234	—	10	19	7	—	1	—

Table 14.

Notification of Infectious Diseases received during the undermentioned years.

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Smallpox	—	—	—	2	—	—	—	—	—	—
Scarlet Fever	241	153	206	1111	506	255	148	147	281	286
Diphtheria	145	103	131	153	170	162	121	86	203	231
Measles	1850	1625	2892	1465	1995	1026	2332	512	4092	1177
Whooping Cough	920	304	448	649	685	516	43	394	1580	185
Enteric Fever	7	1	1	1	2	3	1	—	11	2
Dysentery	3	6	1	13	1	2	—	15	1	1
Erysipelas	70	42	70	80	77	72	52	58	80	77
Pneumonia	242	256	209	263	491	251	226	308	469	234
Typhus Fever	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	16	7	6	11	16	17	7	6	2	10
†Puerperal Pyrexia	—	10	23	20	25	13	8	8	12	19
Ophthalmia										
Neonatorum	16	23	23	20	24	14	3	7	6	7
Poliomyelitis.....	1	—	—	—	9	—	—	—	12	—
Encephalitis										
Lethargica	2	3	2	3	1	2	1	1	1	1
Cerebro Spinal Fever	2	2	—	—	1	—	—	17	10	—
Malaria	—	—	1	—	—	—	—	—	—	—

† Notifiable since 1st October, 1926.

GENERAL OBSERVATIONS.—On the whole the year 1934 was a healthier year than 1933. Compared with the previous year there was a marked reduction in the number of cases of measles, whooping cough and pneumonia notified, and there was no recrudescence of the small outbreaks of enteric fever, cerebro spinal fever or anterior poliomyelitis that occurred in 1933. The number of cases of diphtheria and scarlet fever, however, still remained high, and in the case of diphtheria not only was the incidence greater than in 1933 but the type of the disease was more fatal. An immunisation scheme for the protection of children against this disease was, therefore, established in the early part of the current year.

SMALLPOX.—No case of smallpox was notified during the year.

The extent of vaccination in St. Helens since 1901 is shown in Table 15.

Table 15.

Vaccination returns since 1901.

YEAR	2 Vaccinated	3 Insus- ceptible	4 Dead	5 Con- scientious Objector	6 Post- poned	7 Re- moved	8 Unaccounted	Percentage not Vaccinated including Columns 5, 6, 7, 8
1901	2,639	4	391	11	29	59	24	4.4
1902	2,788	4	342	7	12	58	34	3.8
1903	2,977	8	325	2	6	62	11	2.6
1904	2,940	7	341	10	10	42	25	2.8
1905	2,923	3	270	6	10	29	18	2.1
1906	2,733	5	318	8	12	39	22	2.8
1907	2,810	9	257	24	19	49	17	3.7
1908	2,858	18	248	70	11	35	20	4.5
1909	2,720	8	241	81	9	33	11	4.7
1910	2,731	3	255	131	3	23	19	6.0
1911	2,750	9	277	148	5	26	14	6.5
1912	2,646	4	294	216	12	23	4	8.7
1913	2,499	6	296	339	14	27	9	13.0
1914	2,654	11	281	348	6	22	24	13.0
1915	2,352	2	189	367	9	34	15	15.3
1916	2,056	4	186	287	3	39	24	14.6
1917	1,702	4	158	267	1	6	45	15.7
1918	1,861	0	201	281	8	40	19	14.5
1919	1,999	2	189	385	4	25	18	17.8
1920	2,452	1	223	553	12	18	23	19.8
1921	2,234	2	179	530	6	29	17	20.6
1922	2,143	7	185	411	5	27	23	17.8
1923	2,144	10	139	261	4	10	22	12.17
1924	2,227	7	156	157	6	12	25	8.24
1925	2,150	2	147	234	8	10	26	11.45
1926	2,084	8	151	237	14	9	14	11.62
1927	1,984	7	145	196	10	20	11	10.67
1928	1,990	5	149	242	8	20	8	12.26
1929	1,782	8	139	288	7	16	11	15.3
1930	1,852	3	122	317	8	11	19	16.09
1931	1,724	9	116	329	8	11	15	17.39
1932	1,712	4	125	352	5	15	12	18.32
1933	1,520	5	118	313	8	20	14	18.93†

† Of the 18.93 per cent. unvaccinated, 16.69 per cent. are conscientious objectors.

SCARLET FEVER.—During 1934, 286 cases were notified and 2 deaths occurred. The largest number of cases occurred at the beginning of the year and were a continuance of a higher prevalence at the end of 1933.

The following statement shows the age distribution of all cases occurring and of the deaths :—

Age	No. of Cases.	No. of Deaths.	Case Mortality.
Under 5 years	94	1	1.1%
5—15 years	168	1	0.6%
Over 15 years	24	—	—

Cases are normally discharged from hospital at the end of 28 days, but during 1934 the average duration of stay was 33 days. One case developed acute mastoiditis and was successfully operated on.

Anti-scarlatinal serum continued to be used in all the more serious and septic cases.

DIPHTHERIA.—During 1934 there was a further increase both in incidence and in virulence of diphtheria in St. Helens. In all, 231 cases were notified and 19 deaths were registered as due to this disease. In regard to one of the deaths registered as due to diphtheria, however, enquiry showed that the disease had occurred 30 *years* previously. The incidence of the disease during 1934 was not confined to any particular part of the year or any particular district or school, but was fairly even in its distribution both as regards time and situation.

The high incidence and mortality of this disease occurring as it always does in children, led to the establishment, early in the current year, of a scheme for immunising the children. A public lecture on the benefit of immunisation and explaining the method by which it is produced was held in the Town Hall, and propaganda work was carried out in the schools and at the maternity and child welfare centres. An immunisation clinic was established where parents can have their children immunised free of charge, and the protective material is issued free of charge to medical practitioners for use in their private practice. So far the response has been very satisfactory, though, of course, it is too soon for the beneficial effect in the community to be apparent. That immunisation gives great protection to the child through those years when it is most susceptible to the disease has, I think, been abundantly proved by those who have used it most. That during 1934 the disease was fatal to 1 in every 6 of the non-immunised children under 5 years of age who contracted it in St. Helens, is surely sufficient reason for every parent to have his child protected.

The following statement shows the age distribution of the cases occurring in 1934 :—

Age.	No. of cases.	No. of Deaths.	Case mortality.
Under 5 years	62	10	16.1%
5—15 years	134	6	4.5%
15—45 years	32	2	6.3%
Over 45 years	3	—	—

Diphtheria anti-toxin is available, without charge for medical practitioners either at the office of the Medical Officer of Health or at the Borough Isolation Hospital.

ENTERIC FEVER.—Two cases were notified during the year and one death was registered as attributable to this disease. The fatal case proved on admission to hospital to be a case of cavernous sinus thrombosis, and though there was an indefinite history of gastro-intestinal disturbance no evidence of enteric fever was obtained. The second case notified was a case of paratyphoid B which made a complete recovery. The source of infection in this case could not be traced.

***MEASLES.**—There was a welcome reduction in the number of cases notified during the year, these being 1,177 as compared with 4,092 in 1933. The greatest number occurred in January and was really the concluding phase of the epidemic of the previous year.

The following statement shows the age distribution of the cases and the deaths :—

Ages	No. of cases.	No. of deaths.	Case mortality.
Under 5 years	812	9	1.1%
5—15 years	360	1	0.3%
Over 15 years	5	—	—

* Note.—Further details regarding these diseases will be found in that section of the Report dealing with Maternity and Child Welfare, page 52.

The arrangements for the admission of cases to the Isolation Hospital and for home nursing by the St. Helens and District Nursing Association remain unchanged. During the year, 12 cases were admitted to hospital and the district nurses paid 750 visits to 24 cases for home nursing.

***WHOOPING COUGH.**—Compared with the previous year there was in 1934 a marked decrease in both the incidence and the mortality of whooping cough. Only 185 cases were notified with one death, whereas the corresponding figures for 1933 were 1,580 cases with 52 deaths.

The age distribution of the cases and deaths during 1934 were as follows :—

Ages	No. of cases.	No. of deaths.	Case mortality.
Under 5 years	122	1	0.82%
5—15 years	62	—	—
Over 15 years	1	—	—

***PUERPERAL FEVER AND PUERPERAL PYREXIA.**

10 cases of puerperal fever and 19 cases of puerperal pyrexia were notified during the year and 6 deaths were reported as due to puerperal sepsis. Two of the fatal cases, though registered in St. Helens, belonged to outside the borough.

***OPHTHALMIA NEONATORUM.**—7 cases were notified during 1934.

CEREBRO SPINAL MENINGITIS AND ACUTE POLIOMYELITIS.—There were no cases of these diseases during 1934. A note on the after history of the 12 true cases of Acute Poliomyelitis that occurred in 1933 is contained in the Orthopaedic Section of this Report.

* Note.—Further details regarding this disease will be found in that section of the Report dealing with Maternity and Child Welfare, page 52.

ENCEPHALITIS LETHARGICA.—Only 1 case was notified during the year. This case, which was that of a man aged 52, proved fatal after showing characteristic clinical symptoms.

Another death was registered during the year as being due to post encephalitis lethargica, the case having been notified in 1924.

ERYSIPELAS.—During 1934 there were 77 notifications and 2 deaths were attributed to this disease.

DYSENTERY.—One case was notified from the County Mental Hospital, Rainhill.

MALARIA.—No case was notified during the year.

NON-NOTIFIABLE ACUTE INFECTIOUS DISEASES.

—There was considerable incidence mainly during the months of March, April and May in mumps, the number of cases coming to the notice of the department being 567 as compared with 123 cases in 1933. Cases of chickenpox were also somewhat increased, the numbers being 421 and 487 for 1933 and 1934 respectively. The majority of the cases were in the late autumn.

Influenza, which so frequently takes a heavy toll, appeared to be much milder in 1934, there being only 21 deaths directly attributed to this disease, as compared with 101 during the previous year.

The number of deaths from diarrhoea &c. in children under 2 years of age was 9.

BOROUGH ISOLATION HOSPITAL.—The arrangements at this hospital, which has 94 beds and to which cases from the Urban District of Haydock are also admitted, remained as in previous years. Owing to the great lack of small ward accommodation the question of the conversion of one of the large pavilions into cubicles was considered, but it was decided that it would be more

economical to build an entirely new cubicle pavilion. Plans for this have been prepared and it is hoped to proceed with its construction in the near future. When completed it will give the hospital that much needed isolation accommodation necessary for the very varied types of cases now admitted.

At the beginning of the year there were 92 patients in hospital. New cases admitted during the year numbered 655, making a total number of 747 patients dealt with. At the end of the year there were 61 patients remaining. The highest number of patients under treatment at any one time was 94, and the lowest 26.

The details of admissions and discharges are shown in Table 16.

Table 16.

Peasley Cross Isolation Hospital.

Hospital Diagnoses of cases treated during 1934.

DISEASE	In hospital Jan. 1st, 1934	Admitted	Discharged	Died	In hospital Jan. 1st, 1935
Scarlet Fever	63	281	319	1	24
Diphtheria	17	184	155	17	29
Puerperal Fever	—	10	5	5	—
Puerperal Pyrexia	—	10	9	1	—
Venereal Disease	—	1	1	—	—
Measles	8	12	14	6	—
Other Diseases	4	144	128	12	8
Mothers with sick babies	—	—	—	—	—
Babies with sick mothers	—	13	13	—	—
Total	92	655	644	42	61

Of 281 cases of scarlet fever admitted, 7 (2.49%) were return cases, that is, cases apparently infected within the arbitrary time limit of 28 days by patients discharged from hospital. In all instances the suspected infecting cases were absolutely clean clinically, i.e., free from sores and discharges from the mucous membranes (nose, throat and ear) at the time of leaving hospital.

Visits to the homes of the discharged cases revealed that five had contracted a "common cold" 3 to 15 days after returning home; one had developed tonsillitis; and one was perfectly well and clinically clean.

AMBULANCE PROVISION.—Two motor ambulances are kept at the Isolation Hospital to convey patients to any of the Corporation Hospitals, and a Morris Van for the conveyance of bedding, etc. During the year the total distance travelled was 16,031 miles.

Though urgent cases are at all times conveyed to the hospital without delay, there is no regular night ambulance service.

DISINFECTION.—Disinfection of premises by means of formalin sprays is carried out by the disinfectors from the Medical Officer's Department, and bedding and articles of clothing, etc. are disinfected by steam or other appropriate method at the Borough Isolation Hospital. During the year the disinfectors dealt with 2,158 premises, and the numbers of articles disinfected at the Isolation Hospital were as follows :—

	Articles.
Blankets, Sheets and Rugs	9,670
Hospital Clothing and Bedding	7,865
Pillows and Cushions	6,714
Mattresses, etc.	2,519
Other Articles of Clothing	8,470
Library Books	144
Other Articles	6,210

There is no municipal cleansing station, but facilities for the cleansing and disinfection of persons and their belongings are afforded at the Borough Isolation Hospital. The steam disinfectors are used for the disinfection of bedding etc. of families re-housed from slum property. School children are also removed to this Institution for compulsory cleansing when required.

IV.—LABORATORY WORK.

The majority of the routine bacteriological and pathological examinations are carried out by the medical staff at the Borough Laboratory at the Town Hall, but bloods for the Wasserman reaction and specimens of an unusual nature are examined at the City Laboratories, Liverpool. Table 17 shows the numbers of specimens dealt with during 1934.

Table 17.

SPECIMENS.	Number Received	Results	
		Positive	Negative
Swabs for Diphtheria	3653	179	3474
Sputa for Tuberculosis	970	353	617
Hairs for Ringworm	15	5	10
Blood for Wasserman Reaction	206	43	163
Films for Gonococci	289	73	216
Pus and other fluids and discharges for various organisms	88	18	70
Total	5221	671	4550

Outfits for the collection of specimens of sputa, blood specimens, throat swabs, etc., are supplied free of charge.

Specimens requiring chemical analysis are dealt with by the Public Analyst at his laboratories.

V.—TUBERCULOSIS.

INCIDENCE.—During 1934, formal notifications under the Regulations were received in respect of 94 cases of pulmonary and 40 cases of non-pulmonary tuberculosis. In addition, however,

17 new cases came to the knowledge of the department from the following sources :

	Pulmonary	Non-Pulmonary
Death Returns of cases not previously notified	1	2
Posthumous notifications	1	3
Transfers from other areas	9	1
	<hr/> 11 <hr/>	<hr/> 6 <hr/>

On enquiry the reasons given for non-notification or posthumous notifications were as follows :

Difficulty in diagnosis	3
Practitioner called in only a few days prior to death	1
Case thought to have been previously notified	1
Case seen by more than one practitioner and thought to have been notified by the other	2

The total number of new cases for the year was, therefore, 151, of which 105 were pulmonary and 46 non-pulmonary. At the end of 1934 there remained on the Tuberculosis Register 491 cases of pulmonary and 324 cases of non-pulmonary tuberculosis. The age grouping of the new cases and of the deaths that occurred during the year is shown in Table 18.

Table 18.
Particulars of new cases and of deaths during 1934.

Ages	New Cases				Deaths			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	Males	Females	Males	Females	Males	Females	Males	Females
Under 1 year	—	—	—	2	—	—	—	1
1 to 5 years	2	1	11	2	1	—	7	3
5 to 10 years	1	2	3	8	—	—	2	2
10 to 15 years	—	4	5	—	—	—	2	—
15 to 20 years	7	5	4	—	4	4	2	—
20 to 25 years	3	6	1	2	5	6	—	—
25 to 35 years	19	12	1	3	8	10	1	—
35 to 45 years	13	6	—	1	6	5	—	2
45 to 55 years	13	4	—	2	16	1	—	—
55 to 65 years	4	1	1	—	3	—	1	—
65 —	2	—	—	—	3	—	—	—
Totals	64	41	26	20	46	26	15	8

Though the formal notifications do not represent the total number of new cases each year, they form a fairly accurate guide to the incidence of the disease. The gradual fall in incidence since notification commenced in 1912 is seen in Table 19, which also shows the fall that has occurred in the death rate from tuberculosis.

Table 19.

Number of cases notified and number of deaths each year, 1912 to 1934.

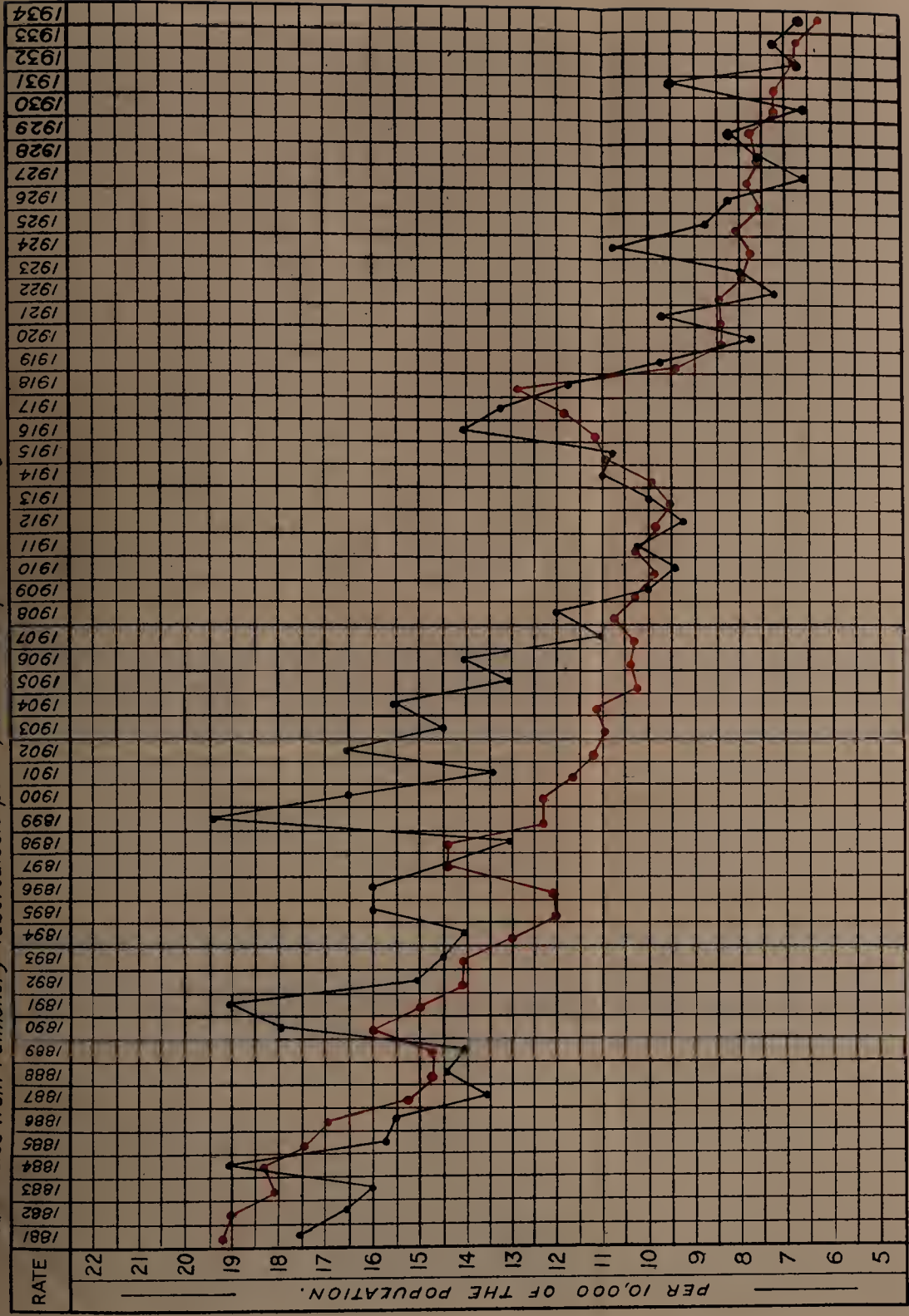
Year	No. of Primary notifications received.		Deaths		Death Rate per 10,000 of population	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
1912	130	—	91	65	9.27	6.02
1913	253	164	100	90	10.05	9.0
1914	207	116	113	65	11.2	6.45
1915	203	126	99	56	10.7	6.07
1916	189	137	127	41	14.1	4.5
1917	198	62	121	42	13.3	4.64
1918	144	40	107	34	11.8	3.75
1919	150	56	99	31	9.8	3.08
1920	221	65	82	37	7.9	3.53
1921	179	63	102	32	9.7	3.05
1922	167	58	78	39	7.3	3.66
1923	141	45	85	27	8.0	2.52
1924	154	75	118	27	10.8	2.48
1925	141	88	97	25	8.8	2.28
1926	140	68	91	32	8.2	2.92
1927	129	61	74	22	6.5	1.95
1928	139	68	84	21	7.6	1.90
1929	130	50	91	24	8.3	2.2
1930	119	53	73	26	6.7	2.4
1931	110	67	103	17	9.5	1.6
1932	141	48	72	16	6.7	1.5
1933	107	60	79	11	7.3	1.0
1934	94	40	72	23	6.7	2.1

Of the 94 cases of pulmonary tuberculosis for which formal notification was received during 1934, 31 died during the year and the average duration of life after notification in these cases was 70.5 days. In 5 cases death occurred within one week of notification.

MORTALITY.—During 1934 there were referable to the borough 95 deaths from all forms of tuberculosis, giving a Tuberculosis Death Rate of 8.8 per 10,000 of the population. Of these

Table 20.

Death Rates from Pulmonary Tuberculosis per 10,000 of the Population in England & Wales and St. Helens, 1881-1934



Black: St. Helens.
Red: England and Wales.



1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0

deaths, 72 were due to pulmonary tuberculosis and 23 to non-pulmonary tuberculosis, giving a pulmonary death rate of 6.7 per 10,000 of the population and a non-pulmonary death rate of 2.1.

The pulmonary death rate of 6.7 per 10,000 for 1934 is slightly lower than the rate for 1933 when it was 7.3, but has been equalled in 1930 and 1932 and was even slightly lower (6.5) in 1927.

The non-pulmonary death rate of 2.1 per 10,000 shows a marked increase over the preceding three years, and was mainly due to the large number of deaths ascribed to tuberculous meningitis. There were 11 such cases out of the total of 23 deaths recorded as due to non-pulmonary tuberculosis, and in 7 of them notification was not received until within 24 hours of death or after death. No reason can be given for this sudden rise in the number of cases of tuberculous meningitis, though it is interesting to note that similar increases occurred in 1930 and 1931. In an endeavour to trace the source of infection, an attempt was made to have all other members of the household concerned medically examined. In only 6 of the 11 households, however, could this be obtained, and in these the only active case found was a case of pulmonary tuberculosis already known to the department.

The ages at which the deaths occurred are shown in Table 9 and the number of deaths and the death rate from each form of the disease since 1912 in Table 19. The death rate from pulmonary tuberculosis since 1881 is shown in Table 20, which also shows the corresponding rates for England and Wales.

TUBERCULOSIS DISPENSARY.—During the year the transfer of the Dental Clinic to Bank House permitted some improvement and expansion of the quarters provided for the Tuberculosis Dispensary. The new rooms are a distinct improvement on the old conditions as patients now have dressing cubicles, lighting and ventilation are much improved, and the clerical work is now conducted in a small ante-room. The improvement, however, can only be

considered as partial and temporary as there is still lack of accommodation for ultra violet therapy and stretcher cases cannot be taken to the X-ray room as the approach to it is up a steep and narrow staircase.

The provision of the new X-ray plant has been an undoubted boon in improving the dispensary work. The routine system of examination of child suspects by clinical examination, X-ray examination and tuberculin testing has been especially useful in obtaining greater accuracy in diagnosis in these cases.

Five sessions are held weekly at the Dispensary for ordinary cases and one session weekly for X-ray therapy. A record of the work in connection with the Dispensary during the last five years is shown in Table 21(a).

All notified cases of tuberculosis in the borough are visited regularly by the Health Visitors and special investigations, arrangements for contact examinations etc. are carried out by a whole-time Tuberculosis Nurse. The practice instituted two years ago of inviting all cases not in institutions to attend by special appointment at stated times for routine medical examination and advice, has proved very satisfactory. That the benefits of such regular medical supervision are appreciated by the cases is evidenced by the regularity with which they respond to the letters of appointment.

During 1934, 240 new cases and 133 contacts were added to the Dispensary Register and 25 cases were transferred from other areas ; 61 cases were discharged from the Register as recovered ; 277 were written off as non-tuberculous ; 64 died ; 45 were transferred to other areas or were lost sight of. This left at the end of the year 691 persons on the Register. Table 21(b) shows the condition at the end of 1934 of all patients on the Dispensary Register.

The number of cases referred by medical practitioners for an opinion showed a definite improvement on previous years, and probably results from the greater service given by the new X-ray

Record of work at or in connection with the Tuberculosis Dispensary
during the years 1930—1934.

	1930	1931	1932	1933	1934
1. New cases examined for the first time	251	228	266	241	240
2. New contacts examined for the first time	54	51	86	130	133
3. Cases transferred from other areas or returned after discharge from the Register	7	9	4	3	25
Total	312	288	356	374	398
4. New cases and contacts diagnosed to be tuberculous :					
Pulmonary—Adults	82	74	83	67	69
„Children	18	11	29	15	5
Non-pulmonary—Adults	9	10	9	9	14
„Children	37	24	32	24	16
Total	146	119	153	115	104
5. Contacts diagnosed to be tuberculous (<i>included in item 4</i>)	1	—	6	5	2
6. Removed from Dispensary Register as :—					
Non-tuberculous	206	181	192	254	277
Recovered	18	29	12	90	61
Dead (all causes)	60	79	69	73	64
Transferred to other areas or lost sight of	26	12	30	30	45
Total	310	301	303	447	447
7. “Recovered” cases restored to Register (<i>included in items 1 and 4</i>)	—	—	—	1	—
8. Cases on Dispensary Register on 31st December :—					
Diagnosis completed :					
Pulmonary—Adults	252	260	281	264	278
„Children	155	165	175	171	155
Non-Pulmonary—Adults	59	57	66	55	58
„Children	233	246	260	230	189
Diagnosis not completed :					
Adults	29	7	14	9	6
Children	45	25	17	11	5
Total	773	760	813	740	691
9. Pulmonary cases on Register on 31st December which were T.B.+	*	93	110	120	130
10. Consultations with medical practitioners (personal and other)	85	141	201	110	146
11. Sputum examinations	175	162	150	256	260
12. X-ray examinations	—	—	—	133	364
13. Home visits by Tuberculosis Officer	85	156	160	113	126
14. Home visits by Nurses or Health Visitors	1572	1556	1581	1578	1903
15. Attendances at Dispensary	2715	2787	2644	2928	2781

*Figures not available.

installation. Of the 240 cases examined for the first time during 1934, 146 were referred by medical practitioners, 39 were referred by medical officers of the maternity and child welfare or school medical services, 8 sought spontaneously the services of the Dispensary, and only 47 were notified previous to their initial attendance.

Unfortunately, the Dispensary still lacks an after-care service. Until this is provided its organisation will never be complete, nor will it fulfil its functions satisfactorily.

During 1934, home disinfection of premises and bedding was carried out in 753 instances, this being an increase of 149 as compared with the previous year.

No case came to notice in which action was required under the Public Health (Prevention of Tuberculosis) Regulations, 1925 (control of tuberculous persons employed in the milk trade), nor was it necessary to obtain compulsory removal to hospital of any patients under Section 62 of the Public Health Act, 1925.

There are no special arrangements under the Tuberculosis Scheme for the provision of home nursing in St. Helens, but many of the cases are dealt with by the St. Helens and District Nursing Association, to whom the Committee make a grant. Shelters are not provided in St. Helens.

NON-PULMONARY TUBERCULOSIS.—At the X-ray department 38 cases of tuberculous adenitis and 21 cases of tuberculous skin affections made 724 attendances for treatment. Modern methods of treatment by ultra violet therapy are still impossible owing to lack of accommodation for a suitable installation.

Bone and joint tuberculosis in children continues to be dealt with under the Council's Orthopaedic Scheme and details regarding them are given in the Orthopaedic portion of the Report. During the year arrangements came into force whereby adults may receive in-patient treatment at the Royal Southern Hospital, Liverpool, or at the Leasowe Open Air Hospital, in addition to the treatment already provided at Eccleston Hall Sanatorium.

Table 21(b).

PULMONARY TUBERCULOSIS.

Supplementary Annual Return showing in summary form (a) the condition at the end of 1934 of all patients remaining on the Dispensary Register ; and (b) the reasons for the removal of all cases written off the Register.

The Table is arranged according to the years in which the patients were first entered on the Dispensary Register as definite cases of pulmonary tuberculosis, and their classification at that time.

Condition at the time of the last record made during the year to which the return relates.				Previous to 1926					1926					1927					1928					1929					1930					1931					1932					1933					1934				
				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus				Class T. B. minus	Class T. B. plus								
					Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)		Group 1	Group 2	Group 3	Total (Class T. B. plus)					
(a) Remaining on Dispensary Register on 31st December.	Disease Arrested	Adults	M.	7	2	—	—	2	3	—	—	—	—	2	1	—	—	1	2	—	—	—	—	—	1	1	—	—	1	2	—	—	—	—	3	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	
		F.	3	1	—	—	1	2	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	1	—	—	—	—	4	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—		
	Children	8	—	—	—	—	1	—	—	—	—	4	—	—	—	—	8	—	—	—	—	7	—	—	—	—	2	—	—	—	—	5	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Disease not Arrested	Adults	M.	6	—	4	7	11	2	—	—	—	—	—	—	2	—	2	4	—	—	—	—	2	1	1	1	3	1	—	6	3	9	2	1	2	—	3	6	2	1	4	7	7	3	10	3	16	11	4	8	5	17
(b) Not now on Dispensary Register and reasons for removal therefrom.	Discharged as Recovered	F.	2	—	1	—	1	3	—	—	1	1	—	—	—	—	—	1	—	—	—	—	—	—	1	—	1	—	1	3	—	1	—	1	2	3	6	—	5	—	5	1	2	3	3	8	7	1	10	3	14		
		Children	4	—	1	1	2	5	—	—	—	—	3	—	—	1	1	5	—	—	—	—	3	—	—	—	—	3	—	—	—	—	2	—	—	—	16	—	1	—	1	12	1	2	—	3	4	—	—	1	1		
	Lost sight of or otherwise removed from Dispensary Register.	20	—	—	1	1	9	1	1	—	2	7	1	—	—	1	17	1	—	—	1	11	—	—	—	—	15	2	1	2	5	10	1	1	—	2	11	1	1	—	2	3	—	—	—	—	—	—	—	—	—	—	—
	Total written off Dispensary Register	50	3	6	9	18	25	1	1	1	3	17	2	2	1	5	37	1	—	—	1	25	1	2	1	4	26	3	8	5	16	27	2	4	2	8	52	3	8	4	15	23	6	15	6	27	22	5	18	9	32		
(c) GRAND TOTALS	Dead	Adults	M.	30	1	—	—	1	3	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		F.	27	—	—	—	—	3	—	—	—	—	1	—	—	—	—	2	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Children	38	—	—	—	—	6	—	—	—	—	5	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Total written off Dispensary Register	193	4	6	10	20	57	2	1	—	3	28	1	—	—	1	30	1	—	—	1	19	—	—	—	—	39	1	1	1	3	5	2	—	—	2	4	2	2	—	4	4	—	—	—	—	—	—	—	—	—	—	—
(c) GRAND TOTALS	Dead	Adults	M.	54	5	19	48	72	14	4	3	28	35	12	1	—	25	26	16	—	—	18	18	15	—	4	14	18	8	4	5	14	23	5	3	1	17	21	—	2	9	16	27	2	—	4	10	14	4	—	5	9	14
		F.	27	4	10	31	45	17	2	8	14	24	9	—	—	9	9	7	—	1	17	18	10	—	1	14	15	2	5	2	10	17	1	4	—	12	16	2	1	3	12	16	1	—	4	11	15	1	—	1	3	4	
	Children	8	—	1	10	11	2	—	—	5	5	3	—	1	4	5	3	—	—	2	2	2	—	—	2	2	—	1	—	2	3	—	2	—	2	4	—	—	1	—	1	—	—	1	1	—	—	—	1	1	—	—	1
GRAND TOTALS	377	14	36	99	149	102	8	12	47	67	59	2	1	38	41	62	1	1	37	39	47	—	5	30	35	49	11	8	27	46	11	11	1	31	43	6	5	15	28	48	7	—	8	22	30	5	—	6	13	19			
GRAND TOTALS	427	17	42	108	167	127	9	13	48	70	76	4	3	39	46	99	2	1	37	40	72	1	7	31	39	75	14	16	32	62	38	13	5	33	51	58	8	23	32	63	30	6	23	28	57	27	5	24	22	51			

Supplementary Annual Return showing in summary form (a) the condition at the end of 1934 of all patients remaining on the Dispensary Register ; and (b) the reasons for the removal of ~~a~~ cases written off the Register.

[illegible]

During 1934 patients suffering from the following types of disease received in-patient treatment at various institutions :—

Bones and Joints	.....	.....	.....	.....	.....	.....	.....	26
Abdominal	.....	.....	.....	.....	.....	.....	.....	11
Other Organs	.....	.....	.....	.....	.....	.....	.....	3
Peripheral Glands	.....	.....	.....	.....	.....	.....	.....	5

DENTAL TREATMENT.—In-patients at Eccleston Hall Sanatorium are examined regularly by the dental surgeon and minor treatments such as extractions, fillings, etc., are carried out and in special cases dentures are supplied. There is no special scheme for dealing with patients attending the Dispensary but urgent cases are from time to time referred to the dental surgeon for treatment.

During the year 103 patients were treated at Eccleston Hall Sanatorium, including 3 to whom dentures were supplied, and from the Tuberculosis Dispensary 14 cases were treated, including one denture case.

INSTITUTIONAL TREATMENT.—Institutional treatment for cases of tuberculosis in St. Helens is provided as follows :—

(a)—Eccleston Hall Sanatorium :—maintained by the St. Helens Corporation. This institution contains 70 beds with accommodation for approximately 32 men, 18 women, and 20 children.

During the year a new dining room was erected for children and alterations were carried out in certain day rooms to give better accommodation for performing minor surgery and artificial pneumothorax. Artificial pneumothorax was commenced in the closing weeks of the year, one case being successfully induced. Increasing attention has been paid to the system of rest combined with graduated exercise as a method of treatment, and in order to provide a greater variety of walks, about one and a half acres of land previously rented to a neighbouring farmer were sown with grass and are at present being laid out with paths and recreation lawns. In the carrying out of this work opportunity has been taken to find employment for an ex-patient.

Table 22.

Return showing the immediate results of treatment of definitely tuberculous patients and of observation of doubtful cases discharged from approved Residential Institutions during the year 1934.

Classification on admission to the Institution		Condition at time of discharge	Duration of Residential Treatment in the Institution.												Totals			G. T.
			Under 3 months			3—6 months			6—12 months			More than 12 months						
			M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	
Pulmonary Tuberculosis	Class T.B. minus.	Quiescent	1	—	4	4	—	1	1	—	5	1	—	5	7	—	15	
		Not Quiescent	1	2	—	1	—	—	1	—	1	—	—	—	3	2	1	
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Class T.B. plus Group 1	Quiescent	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	
		Not Quiescent	2	—	—	—	2	—	2	—	—	—	—	—	4	2	—	
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Class T.B. plus Group 2	Quiescent	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		Not Quiescent	1	2	—	3	3	—	2	1	1	1	5	—	7	11	1	
		Died in Institution ...	1	—	—	—	—	—	1	—	—	—	—	—	2	—	—	
	Class T.B. plus Group 3	Quiescent	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	
		Not Quiescent	1	2	—	1	2	—	2	2	—	3	—	—	7	6	—	
		Died in Institution ...	2	1	—	—	1	—	4	4	—	1	1	—	7	7	—	
Non-Pulmonary Tuberculosis	Bones and Joints	Quiescent	—	—	—	1	—	—	—	—	—	—	2	1	1	2	1	
		Not Quiescent	—	—	—	—	1	—	—	1	—	—	1	1	—	3	1	
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Abdominal	Quiescent	—	—	—	—	—	2	1	—	2	—	—	2	1	—	6	
		Not Quiescent	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1	
		Died in Institution ...	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	
	Other Organs	Quiescent	—	—	2	—	—	1	—	—	—	—	—	—	—	—	3	
		Not Quiescent	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Peripheral Glands	Quiescent	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	
		Not Quiescent	—	—	2	—	—	—	—	—	1	—	—	—	—	—	3	
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Diagnosis on discharge from observation.						For Pulmonary Tuberculosis						For Non-Pulmonary Tuberculosis						Totals	
						Stay under 4 weeks			Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks				
						M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.
Tuberculous ...	...	...	...	...	...	—	—	—	2	—	2	—	—	—	—	1	—	2	1
Non-tuberculous	...	...	...	...	...	2	1	6	—	1	9	—	—	—	—	—	1	2	2
Doubtful	...	...	...	...	...	—	—	1	—	—	—	—	—	—	—	—	—	—	—
TOTALS ...						2	1	7	2	1	11	—	—	—	—	1	1	4	3

NOTE—PULMONARY TUBERCULOSIS : Patients suffering from this disease are now divided into two classes, viz : *Class T.B. minus*, which comprises those patients in whose sputum tubercle bacilli have never been found : *Class T.B. plus*, which comprises those cases in which tubercle bacilli have at any time been found.

Class T.B. plus is further sub-divided into three groups. *Group 1* comprises early cases who will probably have disease arrested by a period of Sanatorium treatment. *Group 3* includes advanced cases and cases with grave complications, e.g., diabetes and tuberculosis of larynx or intestine. *Group 2* includes all cases of *Class T.B. plus* who cannot be placed in groups 1 and 3.

TABLE 23.

Institutional Treatment during the year 1934.

(a)—in Non-Poor Law Institutions.

		In Institutions on Jan. 1	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
Number of doubt- fully tuberculous cases admitted for observation	Adult Males	—	5	3	1	1
	Adult Females	—	3	3	—	—
	Children	2	18	19	—	1
	Total	2	26	25	1	2
Number of patients suffering from pul- monary tuberculosis	Adult Males	26	58	39	14	31
	Adult Females	15	37	31	8	13
	Children	12	13	18	—	7
	Total	53	108	88	22	51
Number of patients suffering from non-pulmonary tuberculosis	Adult Males	2	4	2	—	4
	Adult Females	4	8	7	—	5
	Children	16	17	16	1	16
	Total	22	29	25	1	25
Grand Total		77	163	138	24	78

(b)—in Poor Law Institutions.

		In Institutions on Jan. 1.	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
Number of pat- ents suffering from pulmonary tuberculosis admitted for treatment	Adult Males	5	14	12	4	3
	Adult Females	4	4	6	1	1
	Children	—	—	—	—	—
	Total	9	18	18	5	4
Number of pat- ents suffering from non-pulmon- ary tuberculosis admitted for treatment	Adult Males	3	1	2	—	2
	Adult Females	—	1	—	—	1
	Children	1	5	5	—	1
	Total	4	7	7	—	4
Grand Total		13	25	25	5	8

The Sanatorium school provides education for child inmates able to attend, and bedside tuition is given to those medically fit to benefit therefrom. Of the 65 children in the Sanatorium during the year 59 attended the school for an average period of 137 days each. The average daily attendance at the school was 17.

(b)—Four beds are reserved at the Liverpool Sanatorium, Delamere, for early pulmonary cases.

(c)—Seven beds are reserved at the Leasowe Open-Air Hospital for Children, for non-pulmonary cases.

(d)—Occasional beds are taken as and when required for special cases at various institutions.

In addition to the above, 60 beds are available and used as required for pulmonary or non-pulmonary poor law cases at the Whiston Infirmary, Prescott.

Table 22 shows the immediate results of treatment of patients discharged from residential institutions during the year, and Table 23 shows the extent of institutional treatment provided.

VI.—VENEREAL DISEASES.

The arrangements for treatment and for the bacteriological examination of specimens remained as in previous years.

During the year the male irrigation room was reconstructed and now contains three separate cubicles filled with modern appliances. This arrangement has been of considerable benefit to the patients and has led to a larger number of attendances for irrigation.

Record of work carried out at or in connection with the
Venereal Diseases Centre during 1934.

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than Venereal		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Totals
Number of cases on 1st January under treatment under observation	6	20	—	—	19	22	—	5	25	47	72
Number of cases removed from the register during the previous year which returned during the year under report for treatment under observation of the same condition	1	5	—	—	3	4	—	—	4	9	13
Number of cases dealt with for the first time during the year under report (ex- cluding cases under treatment in 4)	6	6	2	—	39	17	27	54	74	77	151
Number of cases dealt with for the first time during the year under report known to have received treatment at other centres for the same in- fection	—	—	—	—	3	2	—	—	3	2	5
Sum of Items 1, 2, 3 and 4.....	13	31	2	—	64	45	27	59	106	135	241
Number of cases dis- charged after completion of treatment and final test of cure (see Item 15)	1	1	—	—	25	2	27	53	53	56	109
Number of cases which failed to attend before completion of treatment.	4	12	—	—	16	21	—	—	20	33	53
Number of cases which failed to attend after com- pletion of treatment but were final tests of cure	—	—	1	—	5	—	—	—	6	—	6
Number of cases trans- ferred to other centres or institutions, or to care of private practitioners	1	1	—	—	6	3	—	—	7	4	11
Number of cases remain- ing under treatment or observation on 31st Dec- ember	7	17	1	—	12	19	—	6	20	42	62
Sum of Items 5, 6, 7, 8 and 9	13	31	2	—	64	45	27	59	106	135	241
Number of cases of sy- philis included in Item 6 which failed to complete the course of treatment	2	4	—	—	—	—	—	—	2	4	6
Number of attendances— (a) for individual atten- tion of the medical officers	142	311	6	—	657	175	57	167	862	653	1515
(b) for intermediate treatment, e.g., irri- gation, dressing	—	—	30	—	3481	1467	9	—	3520	1467	4987
TOTAL ATTENDANCES	142	311	36	—	4138	1642	66	167	4382	2120	6502

Table 24—continued.

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than Venereal		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
12. In-patients :—										
(a) Total number of persons admitted for treatment during the year	—	—	—	—	—	1	—	—	—	1
(b) Aggregate number of "in-patient days" of treatment given	—	—	—	—	—	21	—	—	—	21
13. Number of cases of congenital syphilis in Item 3 above classified according to age periods	Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	—	1	—	—	1	—	—	—	1	—

TABLE 25.

Number of Cases of Venereal Diseases dealt with for the first time during the years 1923 to 1934.

Year	SYPHILIS		SOFT CHANCRE		GONORRHOEA	
	Males	Females	Males	Females	Males	Females
1923	18	11	—	—	34	2
1924	19	15	—	—	30	9
1925	14	29	1	—	26	4
1926	36	40	2	—	33	9
1927	32	39	4	—	42	14
1928	44	26	3	—	62	11
1929	22	25	2	—	55	14
1930	16	32	1	—	40	14
1931	6	13	—	—	22	16
1932	3	11	—	—	24	21
1933	7	11	—	—	32	18
1934	6	6	2	—	42	19

During the year 106 males and 135 females were treated at the centre and made a total of 6,502 attendances. One female case received in-patient treatment for 21 days. An analysis of the cases is set out in Table 24.

Table 25 shows the number of new cases dealt with each year since 1923. By comparison with the previous year it will be seen that there was a marked reduction in the number of female cases of syphilis but an increase in the number of male gonorrhoea cases. The latter increase has been progressive since 1931.

There was also again a considerable increase in the number of non-venereal cases attending for the first time during 1934 (86 in 1934 as compared with 54 in 1933 and 34 in 1932). This shows a greater use made of the clinic by doubtful cases and is to be encouraged, leading as it does to earlier treatment of those who have venereal disease.

VII.—SUMMARY (for reference) of Nursing Arrangements, Hospitals, and other Institutions available for the district.

HOME NURSING.—The St. Helens and District Nursing Association, supported by voluntary contributions, maintain a superintendent, two assistant superintendents, and twenty nurses to attend non-infectious cases in their own homes. 3,156 cases were nursed during the year, the total number of visits amounting to 128,910.

Arrangements are in operation for the Association to undertake for the Corporation the home nursing of cases of ophthalmia neonatorum, puerperal fever and puerperal pyrexia, and cases of measles and whooping cough in children under 5 years of age. Under these arrangements the district nurses made, during the year, a total of 1,405 visits to 24 cases of measles, 7 cases of ophthalmia neonatorum, 1 case of whooping cough, 11 maternity cases, and 7 other cases.

MIDWIVES.—No district midwives are employed or subsidised by the public health authority. In exceptional cases, however, where the patient has been unable to do so by reason of poverty, the Council have paid the midwife's fee.

CLINICS AND TREATMENT CENTRES.—The following clinics and treatment centres are provided by the Corporation :

(1).—**Maternity and Child Welfare Centres**—Combined clinics for expectant and nursing mothers and for children under 5 years of age.

- (a) Town Hall CentreOpen Monday and Thursday, 2 to 4 p.m. For North and South Windle, Hardshaw and Blackbrook districts.
- (b) Albion Street CentreOpen Tuesday and Friday, 2 to 4 p.m. For Ecclestone, Newtown, Dentons Green, Cowley Hill and Central Districts.
- (c) Elizabeth Street Centre Open Tuesday 2 to 4 p.m. For Sutton District.
- (d) Gartons Lane CentreOpen Wednesday, 3 to 4 p.m. For Marshalls Cross, Sutton Manor and Clock Face Districts.
- (e) West Street CentreOpen Thursday, 2 to 4 p.m. For Thatto Heath District.
- (f) Nunn Street CentreOpen Wednesday, 2 to 4 p.m. For (opened 1st May, 1935). Derbyshire Hill and Parr Districts.

(2).—**Ante-natal Clinics**—For ante-natal cases only.

- (a) Town Hall CentreTuesday, 2 to 4 p.m., and Friday, 2 to 4 p.m.

- (b) Elizabeth Street Centre Thursday, 10 to 11 a.m.
- (c) Gartons Lane Centre.....Wednesday, 2 to 3 p.m.
- (d) West Street CentreMonday, 2 to 4 p.m.
- (e) Nunn Street Centre Wednesday, 10 to 11 a.m.
(opened 3rd October,
1934).

(3).—**Gynæcological Clinic.**—For diseases or disablements associated with child-bearing.

Town Hall Centre.....Tuesday, 11 to 12 noon.

(4).—**School Clinic, Claughton Street.**—For treatment of minor ailments, throat and nose defects, eyes, and dental defects and the X-ray treatment of ringworm. Minor ailments and dental defects are treated daily from 9 a.m. to 5 p.m. (Saturdays 9 a.m. to 12 noon) and other defects on special days. The Dental Department is at Old Bank House. A scale of income has been drawn up for recovery of cost of treatment in non-necessitous cases.

District Clinics for the treatment of minor ailments are also open for a few hours daily at Derbyshire Hill, Sutton, Sutton Manor and Thatto Heath, and, after school dental inspection, Dental Clinics are held at Sutton, Sutton Manor and Thatto Heath for varying periods.

(5).—**Tuberculosis Dispensary, Claughton Street.**—Open Monday from 5-30 to 7 p.m., Wednesday from 10 to 11-30 a.m., Thursday from 3 to 4-30 p.m., and Friday from 10 to 11-30 a.m. and from 5-30 to 7 p.m.

(6).—**Venereal Diseases Centre, Claughton Street.**—Open for males on Monday, 5-30 to 7 p.m., and for females, Wednesday, 5-30 to 7 p.m. The centre is also open daily from 9 a.m. to 5 p.m. on Monday to Friday, and to 12 noon on Saturday, for irrigation, advice and prophylactic treatment.

- (7).—**Orthopaedic Clinic.**—At the Maternity and Child Welfare Centre, Albion Street. Orthopaedic Surgeon attends on 2nd and 4th Wednesdays of each month, from 2 p.m. to 4 p.m. Intermediate treatments are given by the orthopaedic nurse daily at Albion Street Clinic, and once weekly at the Elizabeth Street, Gartons Lane, West Street and Nunn Street Maternity and Child Welfare Centres.

HOSPITALS.—

Provided by the Council :—

- (1)—Borough Isolation Hospital, Peasley Cross. For Infectious Diseases (other than smallpox). Beds : 94. Resident staff : matron and 23-25 nursing staff. Admissions and discharges are under the control of the Medical Officer of Health, but patients are treated by their own medical practitioners. The Corporation provide specialist services in necessitous cases when required. Cases are also admitted from the Haydock Urban District Council.
- (2)—Eccleston Hall Sanatorium. For Pulmonary and convalescent or non-active Non-Pulmonary Tuberculosis. Total Beds : 70. Resident Staff : One medical officer, sister-in-charge and 15 nursing staff. Non-resident female teacher. Orthopaedic Surgeon visits periodically. Cases not exceeding four in number are admitted from the Lancashire County Council.
- (3)—The St. Helens Maternity and Child Welfare Hospital, Cowley Hill. For maternity cases and for ailing and debilitated children. Beds : maternity, 15 ; ailing and debilitated children, 22. Resident staff : medical officer, matron, and 15 nursing staff.

Subsidised by Council :—

- (1)—Sankey Smallpox Hospital for cases of smallpox. St. Helens pays an annual retaining fee to the Warrington Corporation and the costs of treatment of any patient admitted from St. Helens.

(2)—Whiston Infirmary, Prescott. Transferred from the Prescott Board of Guardians to the Lancashire County Council under the Local Government Act, 1929.—Total Beds available (including maternity and mental) : 706, divided approximately :—

Medical	243
Surgical	62
Children	100
Maternity	25
Tuberculosis	60
Mental	216
	<hr/>
	706

There is one resident medical officer and one non-resident, with a visiting oculist, visiting dentist and visiting orthopaedic surgeon, while the medical superintendent has authority to call in any specialist or consultant assistance if he wishes. The pathological work is carried out at the County Mental Hospital, Rainhill. The infirmary is used almost entirely for the reception of Poor Law cases, though a small percentage of private cases is admitted. By an arrangement with the Lancashire County Council, all Poor Law cases from St. Helens are admitted to this Institution.

(3)—An average of 8 beds is also retained at the Leasowe Open-Air Hospital for Children and 4 at Delamere Sanatorium, and in-patients are sent to other hospitals or institutions as required.

Other Hospitals.—*The St. Helens Hospital.*—Supported partly by subscribers and partly by contributions. For all medical and surgical non-infectious cases. Also 17 beds for maternity cases. Total accommodation about 135 beds. Out-patient department for Ophthalmic, Ear, Throat and Nose, and Gynaecological cases.

The Providence Free Hospital.—Accommodation for about 130 patients (general medical and surgical cases).

Ambulance facilities.—For infectious cases, two ambulances are maintained by the Corporation at the Peasley Cross Isolation Hospital. Both general hospitals maintain ambulances and these are used as required. The Police also maintain an ambulance for street accident cases,

VIII.—MATERNITY AND CHILD WELFARE.

NOTIFICATION OF BIRTHS.—Under the Notification of Births Acts, 2,161 live births and 119 still-births were notified during the year. For these, 2,109 notifications were received from midwives and 171 from doctors. The total number of live births belonging to St. Helens for the year was 2,065 as compared with 1,939 in 1933, and the birth rate for the year was 19.1 per 1,000 of the population as compared with 18.0 per 1,000 during 1933.

INFANT MORTALITY.—During 1934, 2,065 births were registered for St. Helens, and the deaths of 135 infants under one year of age occurred, giving an infant mortality rate of 65.4 per 1,000 births as compared with 115.5 for the previous year. Of the 135 deaths under one year, 130 were legitimate children and 5 illegitimate children, giving a legitimate infant mortality rate of 64.4 per 1,000 legitimate births and an illegitimate infant mortality of 106.4 per 1,000 illegitimate births. The infant mortality for England and Wales was 59 per 1,000 births, and for the 121 County Boroughs and Great Towns 63 per 1,000 births.

The principal causes of the deaths in 1934 were as follows :—

Congenital debility, malformations and premature birth.....	83
Pneumonia	13
Bronchitis and other respiratory diseases	8
Whooping Cough and Measles	3
Diarrhoea, etc.	6
Other Digestive Diseases	4
Tuberculosis	1
Influenza.....	3
Due to Violence	1
Other Causes	13
	<hr/>
	135
	<hr/>

The following statement reviews the infant death rates per 1,000 births under the principal causes in the years 1929 to 1934.

Infant Mortality per 1,000 Births.						
	1929	1930	1931	1932	1933	1934
Congenital Debility, mal-formation and premature birth	39.39	39.27	41.32	42.59	47.44	40.19
Pneumonia, Bronchitis and other respiratory diseases	32.32	17.07	19.74	25.00	33.01	10.17
Measles and Whooping Cough	7.53	2.99	3.21	—	8.77	1.45
Diarrhoea, etc.	6.65	4.26	3.67	7.41	5.67	2.91
All other Diseases	27.89	16.21	20.21	14.35	20.63	10.65

The ages at which these deaths occurred during the past five years are shown in the following statement :—

Infant Mortality per 1,000 Births.					
	1930	1931	1932	1933	1934
Deaths under 1 day old	13.23	16.99	14.83	14.44	13.56
Deaths 1 to 7 days old	13.23	13.77	14.83	15.47	10.65
Deaths 1 to 4 weeks old	14.08	10.56	9.72	15.47	11.62
Total mortality under 1 month old, <i>i.e.</i> , neo-natal deaths	40.54	41.32	39.38	45.38	35.83
Deaths 4 weeks to 3 months old	10.67	11.02	19.91	19.03	7.26
Deaths 3 to 6 months old	13.65	13.33	10.65	18.57	8.71
Deaths 6 to 12 months old	14.94	22.48	19.44	32.49	13.56

The infant mortality rate of 65.4 for 1934 was the lowest yet recorded for the borough and shows a very satisfactory reduction from the rate of 115.5 for 1933 which was the highest since 1919. It also compared very favourably with the mortality for the 121 County Boroughs and Great Towns, and is the fifth lowest of all the Lancashire boroughs. From the foregoing tables it will be seen that the reduction occurred at all ages and in respect of all causes. Compared with the previous year the most noticeable feature in 1934 was the reduction that occurred in the number of deaths from whooping cough, pneumonia and other respiratory diseases. It will be noticed also that the neo-natal mortality has been considerably re-

duced, mainly in infants 1 to 7 days and 7 days to 1 month old. The mortality in infants under 1 day old, however, has not altered appreciably over a period of 15 years and this, taken with the fact that the death rate from congenital debility, malformations and premature births has also not appreciably altered, suggests the need of even greater ante-natal supervision of the mothers. It also emphasises the importance of hospital accommodation for the confinement, so that the premature or weakly child may receive that special attention which cannot be adequately given by a midwife working alone.

STILL BIRTHS.—The number of still births registered in St. Helens during the year was 126. Of these, 12 belonged to other districts and 2 which occurred in other districts belonged to St. Helens, so that the total number belonging to St. Helens was 116. All the still births occurring in the borough were notified under the Notification of Births Acts.

The following statement shows the number of still births for St. Helens during the past seven years compared with the number of live births and expressed as a percentage of the total live and still births.

Year	No. of Live Births.	No. of Still Births.	Total Births.	No. of Still Births expressed as a percentage of the Total Births.
1928	2405	105	2510	4.2
1929	2259	107	2366	4.5
1930	2343	108	2451	4.4
1931	2178	103	2281	4.5
1932	2160	104	2264	4.6
1933	1939	121	2060	5.9
1934	2065	116	2181	5.3

Special enquiries are made into all still births that occur, and from such enquiries into the 119 cases notified in St. Helens during 1934, the cause of still birth in these cases would appear to be as follows, viz. :—

CONDITION IN MOTHER.				CONDITION IN CHILD.			
Renal disease	.....	.....	30	Prolapse of cord	.....	.....	6
Placenta praevia	.....	.....	13	Prematurity	.....	.....	10
Accidental haemorrhage	.....	.....	13	Monstrosity	.....	.....	6
Difficult labour	.....	.....	15	Malpresentation	.....	.....	7
Cause not known	.....	.....	10				
Tuberculosis	.....	.....	2				
Syphilis	.....	.....	2				
History of injury, e.g. fall	.....	.....	1				
Influenza	.....	.....	3				
Cardiac Disease	.....	.....	1				
			—				—
			90				29
			—				—

MATERNAL DEATHS.—During 1934, 11 deaths were registered as resulting from diseases or accidents of pregnancy and childbirth, giving a maternal mortality rate of 5.04 per 1,000 live and still births. The corresponding mortality rate for 1933 was 5.34. Table 26 shows the maternal mortality since 1911.

In the course of the special investigation made into all maternal deaths in St. Helens a further four deaths were discovered which, owing to failure to indicate pregnancy in the death certificate were not included in the Registrar General's returns, but in which, no doubt, the pregnancy had considerable bearing on the fatal issue. If these be included the total number of maternal deaths in St. Helens during 1934 is increased to 15, giving a maternal mortality rate of 6.9 per 1,000 live and still births, as compared with a corresponding rate of 7.3 per 1,000 in 1933.

A special report dealing with the Maternity Services in St. Helens with special reference to maternal mortality, was submitted to the Maternity and Child Welfare Committee in December, and is printed as an Appendix to this Report.

TABLE 26.
Maternal Mortality.

Year	No. of Live Births	No. of women registered as dying from diseases and accidents of pregnancy and child birth.	Maternal Mortality per 1,000 live births.	Maternal Mortality per 1,000 live and still births.
1911	3247	10	3.08	—
1912	3137	6	1.91	—
1913	3199	9	2.81	—
1914	3357	17	5.06	—
1915	2966	16	5.39	—
1916	2599	9	3.46	—
1917	2217	10	4.51	—
1918	2435	13	5.34	—
1919	2687	18	6.7	—
1920	3334	17	5.1	—
Average for years 1911/1920	—	—	4.3	—
1921	3059	15	4.9	—
1922	2813	11	3.91	—
1923	2615	3	1.14	—
1924	2628	17	6.47	—
1925	2630	14	5.32	—
1926	2561	11	4.29	—
1927	2359	8	3.39	—
1928	2405	11	4.57	—
1929	2259	13	5.75	—
1930	2343	12	5.12	—
Average for years 1921/1930	—	—	4.5	—
1931	2178	7	3.21	3.07
1932	2160	9	4.17	3.97
1933	1939	11	5.67	5.34
1934	2065	11	5.33	5.04

The following statement gives further particulars regarding each of the maternal deaths during 1934, together with the true causes of death.

No.	Age	Number of pregnancy	Home Conditions	General Health	Ante-natal supervision	Remarks
1	33	2	Good	Poor	Satisfactory	Treated by own doctor for splenic anaemia. Caesarean Section performed on account of Mother's general condition. Wound did not heal. Developed septicaemia.
2	29	3	Poor	Poor	Nil	Placenta Praevia. Admitted to Hospital. Appeared to be recovering after delivery but collapsed and died suddenly 12 hours after delivery.
3	28	2	Comfortable	Fair	Inadequate	Patient ignored advice of midwife to have dental treatment. Had recurrent attacks of rheumatism. Developed Puerperal Septicaemia.
4	27	2	Fair	Poor	Inadequate	Died in Mental Hospital—Puerperal Toxaemia. General and mental condition always poor. Had been in Mental Hospital for treatment 3 years previous. Patient objected to ante-natal supervision.
5	29	1	Comfortable	Good	Satisfactory	Developed Influenzal Broncho-pneumonia.
6	23	2	Fair	Fair	Satisfactory	Very nervous patient. Death due to Cardiac syncope after expulsion of hydatidiform mole.
7	44	15	Poor	Poor	Satisfactory	Death due to Myocarditis and Chronic Nephritis 5 days after delivery.
8	34	3	Poor	Poor	Nil	Bad family history. Mother and 2 sisters in mental hospital. Developed puerperal insanity.

No.	Age	Number of pregnancy	Home Conditions	General Health	Ante-natal supervision	Remarks
9	39	6	Poor	Poor	Nil	Death due to cardiac failure following labour. Did not book midwife or doctor. Died while arrangements for admission to hospital were being made.
10	22	1	Fair	Poor	Satisfactory	Mitral disease. Refused hospital treatment. Developed cardiac failure during 7th month of pregnancy. Died undelivered.
11	27	1	Good	Fair	Satisfactory	Developed puerperal septicaemia following manual removal of placenta.
12	30	4	Comfortable	Poor	Satisfactory	Post-partum haemorrhage and retained placenta.
13	40	6	Fair	Poor	Inadequate	Caesarean section performed for disproportion between foetal head and maternal pelvis. Developed peritonitis and broncho pneumonia.
14	27	1	Comfortable	Poor	Satisfactory	Been treated by own doctor for several years for bronchitis and asthma. Attack of acute bronchitis 7 days before delivery—developed broncho-pneumonia and died 27 days after birth of child.
15	43	6	Good	Anaemic	Inadequate	Very anaemic. Consulted her own doctor only during last month of pregnancy. Booked midwife at 34th week and was referred by her to the doctor. Death due to Obstetric shock.

INFECTIOUS DISEASES IN MOTHERS AND CHILDREN.

Puerperal Fever and Puerperal Pyrexia.—10 cases of puerperal fever and 19 cases of puerperal pyrexia were notified, and though only 4 deaths were registered as occurring from puerperal sepsis, other 3 of the notified cases died. Two of these were transferable deaths and one died from pulmonary infarct secondary to rheumatic endocarditis.

The subsequent diagnoses of the 29 cases notified were as follows :—

Pelvic infection (localised)	10
Puerperal Septicaemia	7
Mastitis	4
Constipation	2
Pneumonia	2
Anaemia	1
Bronchitis	1
Pleurisy	1
Pulmonary Infarct Secondary to Endocarditis	1
	—
	29
	—

The number of cases notified during 1934 is more than double the number for the previous year, when only 14 were notified, and is the highest since 1930. Expressed in relation to births registered the case rates were :—Puerperal Fever 4.4 and Puerperal Pyrexia 8.3 per 1,000 total births (i.e., live and still births) registered during the year. The corresponding rates for England and Wales were : Puerperal Fever 4.0 and Puerperal Pyrexia 9.6 per 1,000 total births. That more than half the cases notified were definitely septic in character shows the need for the strictest asepsis in the conduct of the confinement.

Of the 7 cases of generalised septicaemia 2 followed Caesarean Section in Hospital, 2 were subsequent to manual removal of adherent placenta (one in a nursing home and one in hospital), 1 followed an instrumental delivery at home, in 1 there was a badly lacerated perineum which had been repaired at home, and only 1 was delivered normally at home. 6 of these cases died.

Of the 10 cases with localised pelvic infection, 4 followed normal delivery, 2 followed repair of perineum after normal delivery, 2 followed abortion, 1 followed artificial rupture of the membranes and 1 followed manual removal of the placenta. All were delivered at home and after treatment in hospital made complete recovery.

For these cases beds are available at the Borough Isolation Hospital and, by arrangement with the District Nursing Association, home nursing can be supplied on request.

Of the cases notified, 23 were treated at the Isolation Hospital, 2 at the St. Helens Hospital, and 3 were nursed at home by the district nurses. One case of constipation was dealt with at home by the midwife under the supervision of the medical practitioner in attendance.

The services of the Consultant Obstetrician are available for these cases and his advice was sought on four occasions.

Ophthalmia Neonatorum.—7 cases were notified during the year. All were treated at home under the Council's arrangements with the District Nursing Association. 6 recovered with vision unimpaired and 1 died of Broncho-pneumonia.

Pemphigus.—No cases of pemphigus neonatorum were notified during the year.

Measles and Whooping Cough.—102 cases of measles in children under 1 year of age and 710 cases in children aged 1 to 5 years were notified during the year. 2 deaths were recorded as occurring in children under 1 year of age, and 7 deaths of children aged 1 to 5 years were registered.

11 cases of whooping cough were notified in children under 1 year of age and 111 cases in children aged 1 to 5 years. One death from this disease occurred in the former age group but none in the latter.

By arrangement with the St. Helens and District Nursing Association, home nursing of these cases can be carried out by the district nurses, and beds are available at the Isolation Hospital for cases requiring hospital accommodation. During the year the services of the district nurses were asked for in 17 cases of measles and 1 case of whooping cough, and 8 cases of measles and 2 cases of whooping cough were admitted to the Isolation Hospital.

Other Infectious Diseases.—Table 27 shows the number of cases of infectious diseases which occurred in children under 5 years of age.

Table 27.
Infectious Diseases at ages 0—1 and 1—5 years.

	1934	
	Under 1 Year.	1—5 yrs.
Scarlet Fever	2	92
Diphtheria	4	58
Pneumonia	10	58
Erysipelas	4	2
Poliomyelitis	—	—
Cerebro Spinal Fever	—	—
Whooping Cough	11	111
Measles	102	710
Tuberculosis (Pulmonary)	—	3
„ (Non-Pulmonary)	2	13
Ophthalmia Neonatorum	7	—

INSPECTION AND SUPERVISION OF MIDWIVES.—

There were 39 midwives on the register as practising in the borough during the year and the qualifications of these midwives were as follows :—

Holding the Certificate of the Central Midwives' Board	37
Having other recognised certificates	2

In addition to the above, 9 midwives are employed at the Council's Maternity and Child Welfare Hospital and 5 midwives are employed in the Maternity Block of the St. Helens Hospital. The matrons of both these institutions are also qualified midwives.

During the year 4 midwives voluntarily surrendered their certificates owing to age and infirmity.

Inspections of midwives were carried out on 104 occasions by medical officers, and the health visitors paid 68 routine and 32 special visits for purposes of inspection and supervision. In 23 instances it was considered necessary to suspend a midwife from practice for 24 hours after contact with an infectious case to allow of the disinfection of herself and her appliances.

During the year the private midwives attended 1,476 cases as midwives and were in attendance on 61 cases as maternity nurses.

In their capacity as midwives they found it necessary to call medical practitioners to their assistance on 469 occasions. The reasons for sending and the number of occasions in which medical assistance was required were as follows :—

Number of cases attended by private midwives 1476

Number and percentage in which medical assistance
was obtained 469 (31.8 %).

Reasons for medical assistance :—

(a) For abortions and premature labours	36	(2.5 %)
(b) For ante-natal illnesses	34	(2.3 %)
(c) For difficult labour	203	(13.8 %)
(d) For suturing the perineum, expelling the placenta, excessive haemorrhage, etc.	114	(7.7 %)
(e) For post-natal illnesses	34	(2.3 %)
(f) For the child	48	(3.2 %)

During the financial year 1934-35 £721/18/0d. was paid to medical practitioners for these services, and £240/2/0d. was re-charged to the patients.

PROVISION OF MIDWIVES.—Though no district midwives are directly employed or subsidised by the public health authority, the whole or part of the fee of the midwife in attendance is paid in exceptional cases where the patient is unable to pay by

reason of poverty. During 1934 payments were made in 69 instances and the amount expended was £60/4/6d.

HEALTH VISITING.—The following statement shows the visits paid by health visitors during the year.

To expectant mothers :—

(a) First visits	611
(b) Subsequent visits	716

To infants under one year :—

(a) First visits	2,401
(b) Subsequent visits	13,447

To children, aged one to five years

22,844

Total Visits	40,019
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These visits show a substantial increase on the previous year when the total visits paid numbered 36,304.

MATERNITY AND NURSING HOMES.—During the year one private nursing home was voluntarily closed, so that there are now only three maternity homes registered in St. Helens under the Nursing Homes Registration Act, 1927. These have been periodically inspected and found to be satisfactory.

During the year 72 maternity cases were delivered in these homes.

Exemption from the provisions of the Act was granted to the St. Helens Hospital and the Providence Free Hospital. In the maternity block of the St. Helens Hospital 341 cases were delivered.

MATERNITY AND CHILD WELFARE AND ANTE-NATAL CLINICS.—The attendances at the various maternity and child welfare and ante-natal clinics during 1934 are shown in Table 28. In October 1934 an additional Ante-natal Clinic was

opened at the Girls' Institute, Nunn Street, Parr, and is greatly appreciated by the mothers living in the Parr and Derbyshire Hill districts as it saves the journey to the Town Hall Centre. Early in the current year arrangements were also made to transfer one of the baby clinics from the Town Hall to Parr. Combined clinics for expectant and nursing mothers and for children under 5 years of age are, therefore, now conducted at eight sessions weekly at six centres and special ante-natal clinics are held six times weekly at five centres.

From Table 28 it will be seen that the number of 'toddlers' attending the clinics is still very small. During the past three years the number has actually decreased. This is to be regretted. Between the ages 1 and 5 years is a period of great importance to the growing child. Small defects may develop which if discovered early are easily remedied, but which if undiscovered may mean permanent injury. Further, it means that many children do not commence their school life in that healthy and physically fit condition that should be theirs.

Among the 1,008 mothers attending ante-natal clinics, abnormalities or diseases requiring correction or treatment were discovered in 154 cases (15.3%). These abnormalities were :—

Albuminuria	59
Abnormal presentation.....	35
Excessive Leucorrhoea.....	9
Contracted pelvis	7
Cardiac disease	13
Varicose Veins	12
Anaemia	11
Hyperemesis gravidarum	3
Exophthalmic goitre	2
Abscesses	2
Phlebitis	1
	<hr/>
	154
	<hr/>

TABLE 28.

Attendances at Maternity and Child Welfare, Ante-Natal and Gynaecological Clinics.

1931—1934.

	1931	1932	1933	1934
Maternity and Child Welfare Centres.				
1. Expectant Mothers :				
Number attending	250	196	128	144
No. of attendances	886	773	576	626
2. Children :				
(a) Number who attended for the first time during the year and who, on the date of their first attendance, were :—				
(i) under 1 year of age	1438	1413	1168	1380
(ii) between the ages of 1 and 5 years	581	603	578	554
(b) Percentage of notified births represented by the number in 2 (a) (i)	65.27	63.85	57.73	63.86
(c) Number who attended and at the end of the year were—				
(i) under 1 year of age	†	1152	907	1082
(ii) between the ages of 1 and 5 years	†	1633	1531	1471
(d) No. of attendances by children—				
(i) under 1 year of age	24549	26733	24322	26899
(ii) between the ages of 1 and 5 years	2600	2866	3228	3199
Ante-natal Clinics.				
No. of expectant mothers attending	1078	990	954	1008
No. of attendances by expectant mothers	3959	4274	4195	4672
Percentage of total notified births (live and still) represented by the number of expectant mothers who attended either the Maternity and Child Welfare Centres or the Ante-natal Clinics	57.6	51.2	50.4	50.5
*Gynaecological Clinic.				
No. of Mothers attending	21	117	154	182
No. of attendances	41	374	510	522

† Figures not available.

* Clinic opened 6th October, 1931.

GYNAECOLOGICAL CLINIC.—With the passing of each year more and more women are appreciating the benefits of attendance at the Gynaecological Clinic first opened in 1931. This Clinic serves a threefold purpose : (a) a centre where post-natal cases may go for examination and advice ; (b) a clinic where women suffering from any disease or disability associated with childbirth may obtain advice and treatment ; and (c) a centre where birth control advice may be given when further pregnancies would be detrimental to the mother's health.

During 1934, a total of 182 patients attended the clinic.

Of the 81 post-natal patients who attended, 24 required treatment for debility, 11 for anaemia and 9 for persistent albuminuria, whilst 37 were regarded as fully recovered.

Among the other patients, 35 suffering from displacements of the uterus were dealt with, 3 being referred for operation and the remainder treated at the clinic. 3 patients with menopausal symptoms, 1 with bronchitis, 1 subject to epilepsy and 2 with cardiac disease attended for examination and were referred to their own doctor for treatment. Similarly 1 patient with exophthalmic goitre, 1 with rheumatism, 1 with cystitis and 1 showing post-encephalitic symptoms were advised to obtain treatment from their family practitioner. 3 cases of thyroid insufficiency were treated and responded well to treatment. 1 case of cancer of the uterus was referred to the Liverpool Radium Institute for treatment. 1 case of sterility attended for examination and advice. 8 cases were referred by the Public Assistance Committee for measurements for surgical appliances. 6 cases of tuberculosis were referred to the Tuberculosis Dispensary and 7 patients with venereal disease were referred to the Venereal Diseases Clinic for treatment. 20 patients were found to be ante-natal and were referred to the ante-natal clinics.

Advice on birth control methods was given to 9 patients. 4 of these were suffering from cardiac disease, 3 had renal disease, 1 had pulmonary tuberculosis and 1 was the victim of cancer of the

uterus and was awaiting admission to hospital for operation. In all these cases further pregnancies meant serious risk to life.

The services of the Council's Consultant Gynaecologist are available for patients attending this Clinic. During 1934, 3 patients were referred to him and in each case an operation was performed by him.

SUNLIGHT CLINIC.—Two sessions are held weekly at the Artificial Sunlight Clinic, and during 1934, 127 children made 988 attendances for treatment. There is no doubt this clinic has been of great benefit in helping the weakly and the rachitic child and is of the greatest assistance as an adjunct to other forms of treatment.

The following are the conditions for which children received treatment during the year :—

Rickets	67
Debility and malnutrition	35
Slow gain in weight	9
Marasmus	4
Anaemia	5
Eczema	2
Bronchitis	1
Pyloric Spasm	1
Tubercular knee	1
Spastic Diplegia	1
Torticollis	1
	<hr/>
	127
	<hr/>

HOSPITAL ACCOMMODATION.—The Council maintain 15 beds for maternity cases and 22 cots for ailing and debilitated children at their Maternity and Child Welfare Hospital, Cowley Hill. Though only opened in May, 1931, however, the accommodation for maternity cases is already over-taxed. During the past few years the percentage of mothers desirous of going to hospital or nursing home for their confinement has increased very considerably. In 1931 the percentage of total (live and still) births registered in

St. Helens that occurred in a hospital or nursing home was 26.4%. In 1932 it was 29.2%. In 1933, 29.5%, and in 1934, 36.0%. Of the total registered births during 1934, 17.8% occurred in the Council's Maternity Hospital, 15.0% at the St. Helens Hospital, 3.2% in midwives' private nursing homes and 64.0% in the patients' own homes. The Council, therefore, decided to increase their maternity beds from 15 to 20 by utilising half the children's accommodation for the purpose, and to transfer the children displaced to a children's annexe to be opened on adjoining premises. The children's annexe, which would have 20 cots, would also be used as a hostel for toddlers in cases where suitable arrangements could not be made for their care at home whilst the mother was in hospital, and as a nursery for infants at present in Poor Law Institutions. A Scheme for expansion on these lines has been prepared and it is hoped to proceed with it during the current year.

On the maternity side of the Council's hospital, 473 cases were admitted during the year, which, with 15 cases remaining in the hospital from the previous year, brought the total number of cases dealt with during 1934 to 488. The average duration of stay of all cases was 11.6 days.

The number of cases delivered during the year was 410, and among them the following abnormalities were dealt with :—

Induction of labour	22
Albuminuria	18
Breech delivery	18
Placenta Praevia	14
Caesarian Section	5
Face presentation	4
Forceps delivery	4
Abortion	4
Adherent placenta	1
Episiotomy	1
Puerperal mania	1
Cardiac Disease	9
Phthisis	2

In addition to cases admitted for delivery, 39 ante-natal cases were admitted for rest or treatment for the following reasons :— Albuminuria 18, Cardiac Disease 9, Debility 10, and Phthisis 2.

There were 2 maternal deaths in the hospital during the year, the causes of death being :

- 1. Placenta Praevia.
- 2. Myocarditis and Chronic Interstitial Nephritis.

Infant deaths numbered 37, of which 25 were still born. The causes of the other 12 infant deaths were :

Prematurity due to placenta praevia	2
Prematurity due to albuminuria in mother	4
Intra-cranial haemorrhage	3
Congenital Malformation	1
Microcephaly.....	1
Haemorrhage of the new-born	1
	—
	12
	—

On the children's side of the hospital 94 cases were dealt with during the year, including 16 cases which were remaining in hospital on the 1st January. Table 29 gives a summary of the children dealt with during the year, and Table 30 shows the reasons for admission.

TABLE 29.

General summary of the cases admitted to the Children's Wards of the St. Helens Maternity and Child Welfare Hospital during 1934.

Hospital 1st , 1934	Number of Admissions during year	Average duration of stay in days	Number of Cases Discharged				Deaths	Number of Cases of Infectious Diseases			
			No improvement.	Improved.	In Good health.	Transferred to other Hospitals		Measles.	Whooping Cough.	Epidemic Diarrhoea	Scarlet Fever.
6	78										
94		67	1	5	58	*2	9	—	—	—	—

* 1 transferred to Leasowe Open-Air Hospital for Children.
1 „ „ Nazareth House Orphanage, Liverpool.

Table 30.

Table showing the reasons for admission of Children to the St Helens Maternity and Child Welfare Hospital during 1934.

Reason for Admission	Number
Rickets	12
Bronchitis	1
Marasmus	13
Debility	21
Malnutrition	4
Tubercular Spine	1
Tubercular peritonitis	1
Gastro enteritis	16
Pylorospasm	2
Broncho pneumonia	1
Congenital Heart	1
Congenital Syphilis	1
Spina Bifida	2
Anaemia	2
	78

CONSULTANT SERVICES.—The services of a Consultant Obstetrician and Gynaecologist are available for any cases in which special difficulty is experienced. He acts as Consultant Surgeon to the Council's Maternity Hospital and to all the Clinics and, under the Council's arrangements for the treatment of puerperal fever and puerperal pyrexia, his services are available to medical practitioners requiring specialist opinion in such cases.

The services of the Council's other consultant officers, e.g., the Ophthalmic Surgeon, the Throat and Nose Surgeon, and the Orthopaedic Surgeon, are also available and employed when required for any cases under the Maternity and Child Welfare Scheme.

MILK FOR MOTHERS AND INFANTS.—At all the clinics and centres full cream dried milk and chocolate milk are on sale at cost price, or are available at less than cost price for necessitous cases. Cases in receipt of relief from the Public Assistance Committee are, when so requiring it, recommended to that Committee for the supply of extra nourishment.

During the year approximately 384 cwts. of milk or chocolate-milk were disposed of, and, of this, 100 lbs. were issued free and 41,260 lbs. at less than cost price.

Cod Liver Oil Emulsion, Malt and Oil, and Virol are also provided at the centres at cost price or free in suitable cases.

STERILE MATERNITY OUTFITS.—Sterile maternity outfits containing swabs, pads, etc., were available for issue at the low cost of 3/- each, but despite the fact that these could be purchased by instalments, very little use was made of this service. Only 30 were sold during 1934. To encourage the use of these outfits the price was reduced to 1/6 on 1st January, 1935.

MATERNITY BAGS.—Maternity Bags containing sheets, nightgowns, baby clothing, etc., were issued on loan to 11 cases during the year.

MINOR AILMENTS AND DENTAL DEFECTS.—During the year, 7 children received treatment for minor ailments, and 245 mothers and 156 children received dental treatment at the school clinic. Mothers in need of dentures are supplied with these at cost price. During the current year arrangements have also been made for the supply of spectacles to toddlers in necessitous cases when these are required for the treatment of squint.

CRIPPLED CHILDREN.—A complete record of the work of the Orthopaedic Clinic is given in Table 31 in the Orthopaedic section of the Report.

From that Table it will be seen that under the Maternity and Child Welfare Service 165 crippled children under 5 years of age were dealt with. This involved 213 attendances to see the orthopaedic surgeon, 1614 attendances for intermediate treatment, and 50 home visits by the nurse for purposes of supervision. 7 cases were admitted to orthopaedic hospitals for operation or other surgical treatment.

INFANT LIFE PROTECTION.—Particulars are given in the following statement of the cases dealt with during the year under the Children and Young Persons Acts.

Number of persons on the Register who were
receiving children for reward at 31/12/1934 11

Number of children—

(a) On the Register at 1/1/1934	14
(b) Admitted to the Register during the year	7
(c) Removed from the Register during the year—	
(i) Left the Borough	—
(ii) Legally adopted	2
(iii) Returned to relatives	5
(iv) Over age	2
	—
(d) Who died during the year	9
(e) On the Register at 31/12/1934	1
	11

The children were inspected regularly throughout the year by the health visitors, who are also infant protection visitors under the Acts, and all were found to be well cared for and living under satisfactory conditions.

IX. ORTHOPAEDICS.

A record of the work carried out under the Orthopaedic Scheme during 1934 is given in Table 31.

From Table 31 it will be seen that 466 cases were on the Orthopaedic Register at the beginning of the year and 117 new cases were seen during the year. At the end of 1934, 397 cases remained on the register. These were classified as follows:—Tuberculosis 43, Maternity and Child Welfare Cases 81, and Non-Tubercular School Children 273. The attendances for intermediate treatment show an increase of approximately 50% over those for the previous year, due to the use of the district clinics at Thatto

Heath and Gartons Lane for intermediate treatments. These district clinics have been so successful that it is hoped to arrange for one for the Parr district during the current year.

Table 31(a) shows the cases seen during the year, classified according to their defects. It will be noticed that rickets still forms an appreciable proportion of the cases dealt with. When the child is under 5 years of age, treatment and supervision at the Orthopaedic Clinic is combined with ultra-violet ray therapy at the Artificial Sunlight Clinic and, when necessary, institutional treatment at the Maternity and Child Welfare Hospital.

It will also be noted that the number of cases due to Infantile Paralysis (Anterior-Poliomyelitis) is considerable and here again we have a condition which, if not entirely preventable, could be greatly improved by early—and patient—treatment. Unfortunately, the disease is one which in the acute stage is frequently thought to be only a ‘feverish cold’ and its true nature is not recognised until paralysis develops. Even then, however, complete cure can be effected if only proper treatment is commenced at once and persevered with. As showing what can be done with such cases, the after history of the 12 cases of infantile paralysis occurring in the small outbreak of that disease in 1933 is interesting. With one exception all the cases came under the care of the Orthopaedic Clinic. The cases were reviewed at the beginning of the current year and the notes refer to their condition at that time. The ages given are those at the time of the acute illness.

Case 1 : Boy, age 10 years.

Onset of acute illness—11th June, 1933. At first examination on the 21st June, 1933, there was complete paralysis of the main and partial paralysis of other muscles of the right shoulder, and partial paralysis of the biceps. The right forearm and arm were otherwise normal. He was discharged from the Orthopaedic Clinic on the 8th May, 1935, when there had been a complete recovery of all muscles.

Case 2 : Girl, age $2\frac{1}{2}$ years.

Onset of acute illness about 24th May, 1933. Seen first on 21st June, 1933, when there was partial paralysis of the left leg. Recovery of muscle power has taken place but slight knock knee existed for some time and a splint had to be worn. She is now gradually discarding the splint.

Case 3 : Girl, age 14 months.

Onset of acute illness about 20th June, 1933, or a little earlier. Admitted to the Isolation Hospital on the 1st July, 1933, when she was found to have partial paralysis of the right thigh and weakness of both feet. Recovery of the right thigh has been complete, and both feet are much improved except that there is some flat foot for which she is receiving treatment.

Case 4 : Boy, age 15 months.

An acute illness occurred in the second week in May, 1933, after which there was weakness of the back and right shoulder muscles. At the first examination on the 21st June, 1933, there was complete paralysis of the right upper arm and shoulder, with weakness of the back muscles. Practically complete recovery has now taken place.

Case 5 : Girl, age $3\frac{1}{2}$ years.

This case had acute illness on 1st June, 1933, and paralysis of the right leg occurred on the 3rd June. She was admitted to the Isolation Hospital on the 14th June, when she was found to have complete paralysis of the right leg and thigh and partial paralysis of the left leg. Slight recovery has taken place in the hip muscles and muscles of the thigh, and there has been a fairly good recovery in the left foot. No recovery has taken place in the right foot and she has recently undergone a stabilizing operation.

Case 6 : Boy, age 2 years.

An acute illness began on the 19th May, 1933. The child was admitted to the Isolation Hospital and was examined by the Orthopaedic Surgeon on the 26th June, when there was complete paralysis of the right leg and thigh. There has been partial recovery of the thigh muscles but only slight recovery of the foot, for which a stabilizing operation is to be performed.

Case 7 : Girl, age 15 months.

An indefinite illness occurred about 10th May, 1933. The child attended an Infant Welfare Clinic on 6th July and was referred from there to the Orthopaedic Clinic. Paralysis of the right thigh and leg were present. The thigh has recovered almost completely but drop foot remains.

Case 8 : Girl, age $3\frac{1}{2}$ years.

An acute illness commenced 21st April, 1933. The patient was transferred to the Isolation Hospital on the 27th April when complete paralysis of the right arm and shoulder was found. After ten months treatment, when slight improvement in the forearm and hand muscles had taken place, treatment was discontinued by the parents against advice.

Case 9 : Girl, age 3 years.

This child, who had partial paralysis of the right hip and leg, left the district shortly after treatment commenced and no further information is available.

Case 10 : Girl, age $2\frac{1}{2}$ years.

This case had an indefinite illness in the 1st week in June, 1933. First seen on 13th September, 1933, when paralysis of the right leg and thigh existed. Complete recovery of the thigh muscles has since taken place, but drop foot remained and a slight operation was undertaken.

Case 11 : Girl, age 3 years.

An acute illness occurred in the latter part of May, 1933. The case was not seen by the department until 13th September, when there was partial paralysis of the left leg. Partial recovery only has taken place and it is still necessary to wear a walking splint.

Case 12 : Boy, age 8 years.

Had paralysis of left leg and has received regular orthopaedic treatment in Liverpool. Is said to have improved considerably, but he wears a splint and walks with some difficulty.

Institutional treatment under the Orthopaedic Scheme was carried out as before at the Royal Liverpool Children's Hospital, Myrtle Street, or its Heswall branch, and at the Royal Southern Hospital, and for cases of Tuberculosis at Eccleston Hall Sanatorium and the Leasowe Open Air Hospital. The number of cases treated at each hospital is given in Table 31.

Table 31.

Record of work under Orthopaedic Scheme during the year 1934.

	Cases of Tuberculosis	Maternity and Child Welfare Cases	Non- tubercular School Children
Number of Cases on the Register, 1st January, 1934	42	115	309
Number of New Cases seen during 1934	6	50	61
Number of Old Cases seen during 1934	42	115	309
Number who attended for Consultation only	—	—	6
Number Discharged Cured or Improved	4	13	39
Number discharged showing no material improvement	—	2	2
Number ceased to attend, over age, etc.	1	42	49
Cases transferred to Education Account	—	26	—
Cases transferred to Tuberculosis Account	—	1	1
Number of Cases remaining under Treatment at end of 1934	43	81	273
Attendances to see Orthopaedic Surgeon	68	213	493
Attendances for intermediate treatment	567	1614	5375
Visits to Homes by Orthopaedic Nurse	132	50	204
Cases treated in Royal Liverpool Children's Hospital : Myrtle Street	1	5	15
Heswall	—	2	17
Cases treated in Leasowe Open-Air Hospital for Children	10	—	—
Cases treated in Royal Southern Hospital	—	—	5
Cases treated in Maternity and Child Welfare Hospital	—	2	—
Cases treated in Eccleston Hall Sanatorium	7	—	—
Total number of days of Institutional Treatment	4174	277	2283

Table 31(a).

Defects treated under the Orthopaedic Scheme during 1934.

Defect	Tuberculosis	Maternity and Child Welfare Cases	Non- tubercular School Children
Infantile Paralysis	—	28	58
Other forms of Paralysis	—	11	58
Rickets	—	52	54
Congenital deformities	—	27	36
Acquired Foot deformities	—	32	74
Traumatism	—	5	25
Arthritis	—	2	4
Postural Defects	—	1	43
Miscellaneous	—	7	18
Tuberculosis :			
(a) Spine	20	—	—
(b) Hip	9	—	—
(c) Knee.....	8	—	—
(d) Ankle	5	—	—
(e) Others	6	—	—
Total	48	165	370

Arrangements for the provision of splints remained in the hands of the St. Helens Invalid and Crippled Children's Aid Society, who also do magnificent after-care work in providing, when necessary, extra nourishment and periods of convalescence in holiday homes.

No scheme has yet been formed for orthopaedic cases over 16 years of age, but as is recorded in the Tuberculosis Section of the Report, provision has now been made for additional bed accommodation for adult cases of tuberculosis.

X.—WELFARE OF THE BLIND.

There were 199 Blind Persons on the Blind Register for St. Helens on the 1st January, 1934, and this number increased by 18 to 217 during the year. The following is an analysis of the cases on the register at the 31st December, 1934.

Age distribution :—

Age	0—4	years	.....	.....	.....	—
	5—15	„	.....	.....	.....	9
	16—19	„	.....	.....	.....	10
	20—49	„	.....	.....	.....	52
	50—69	„	.....	.....	.....	60
	70—	„	.....	.....	.....	86
						—
			Total	.....	.....	217

Educational and occupational distribution :—

Infant	.....	.....	.....	.....	.....	—
Education	At School	.....	.....	.....	.....	8
	Not at school	.....	.....	.....	.....	1

Employment—Employed (Workshops or Home Workers Scheme)	.....	.....	.....	.....	.....	24
Employed (Working on own account)	.....	.....	.....	.....	.....	8
Under Training	.....	.....	.....	.....	.....	9
Not training but trainable	.....	.....	.....	.....	.....	1
Unemployable	.....	.....	.....	.....	.....	166

All provision for the care and welfare of the local blind—with the exception of that of blind children under two years of age, and the education of children of school age and vocational training—is undertaken on behalf of the Corporation by the St. Helens and District Society for the Welfare of the Blind.

The treatment of persons suffering from disease of, or injury to the eye, and the provision of suitable glasses as a preventative of blindness is undertaken by the Council under Section 66 of the Public Health Act, 1925.

XI.—LOCAL GOVERNMENT ACT, 1929.

The administrative arrangements under the Local Government Act, 1929, were described in my Report for 1930 and remain substantially unchanged. During the year arrangements were made for cases requiring dental treatment to be treated at the Council's Dental Clinic and for cases with eye diseases or defects to be treated by the Ophthalmic Surgeon at either the St. Helens Hospital or the Providence Hospital.

Table 32 shows the number of persons in receipt of institutional relief on medical grounds on the 1st January, 1935.

Table 32.

Persons in receipt of Institutional Poor Relief on account of sickness, or bodily or mental infirmity, and rate aided persons in mental hospitals on the night of the 1st January, 1935.

Establishments in which persons were relieved.	Men	Women	Children between 3 and 16 years of age	Infants under 3 years of age	Total
(A) <i>In Poor Law Establishments :—</i>					
Whiston Infirmary :					
(a) Sick wards	58	38	8	1	105
(b) Persons suffering from mental infirmity and certified under the Lunacy Acts or the Mental Deficiency Acts	50	58	—	—	108
Swinton Homes for Mental cases	—	—	1	—	1
(B). <i>In Establishments not administered under the Poor Law Acts :—</i>					
(a) Establishments for persons suffering from mental infirmity, excluding persons maintained under the Lunacy and Mental Treatment Acts, 1890 to 1930, in Mental Hospitals :—					
Royal Albert Institution,	2	—	—	—	2
(b) Other Establishments for the Sick—					
Maghull Home for Epileptics	2	4	—	—	6
St. John's Institution for Deaf and Dumb, Boston Spa	—	1	—	—	1
David Lewis Epileptic Colony, Manchester.....	1	—	—	—	1
Royal Infirmary Liverpool	—	1	—	—	1
Chalfont Epileptic Colony, Bucks.	—	1	—	—	1
(C). <i>In Mental Hospitals administered under the Lunacy and Mental Treatment Acts :—</i>					
Rate aided persons	120	118	—	—	238
TOTALS	233	221	9	1	464

**XII.—LIST OF ADOPTIVE AND LOCAL ACTS, BYELAWS,
AND LOCAL REGULATIONS AND ORDERS
relating to the public health, in force in the district.**

ADOPTIVE ACTS.

The Infectious Disease (Notification) Act, 1889, applied to :

- (1) Ophthalmia Neonatorum, by Order of the Local Government Board, which came into force on the 7th April, 1910.
- (2) Acute Poliomyelitis and Cerebro Spinal Fever, by Order of the Local Government Board, which came into force on the 19th February, 1912.

The Infectious Disease (Prevention) Act, 1890. Adopted 7th January, 1891.

The Public Health Acts Amendment Act, 1890. Parts II and III adopted 1st April, 1891. Part IV adopted 1st July, 1923. Part V adopted 24th October, 1894.

Public Health Acts Amendment Act, 1907, Sections 78, 79, 80, 81, 85, 88, 89 and 90, put in force 1st January, 1909. Sections 19, 25, 26, 27, 29, 32, 33, 34, 35, 36, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 63, 64, 66, 67, 68, 93, and 95, and Part V, put in force 23rd August, 1909.

The Public Health Act, 1925, Part II, Sections 13, 14, 15, 16, 20, 23, 25, 26, 27, 28, 30, 31, 32, and 35 ; Parts III, IV, and V, adopted 7th December, 1927, put in force on 1st February, 1928.

LOCAL ACTS with Sanitary Clauses.

The St. Helens Improvement Act, 1869.

The St. Helens Corporation Act, 1893.

The St. Helens Corporation Act, 1898.

The St. Helens Corporation Act, 1911.

The St. Helens Corporation Act, 1921.

The St. Helens Corporation Act, 1933.

ADAPTATION OF LOCAL ACTS.

The Borough of St. Helens (Adaptation of Local Acts) Order, 1930, made by the Minister of Health, for bringing certain provisions of the local Acts into conformity with the provisions of the Public Health Act, 1925.

The Ministry of Health Provisional Orders Confirmation (St. Helens and York) Act, 1931 ; confirming the St. Helens Order, 1931 as to Tuberculosis.

The Ministry of Health Provisional Orders Confirmation (No. 1) Act, 1928, repealing and altering certain sections of the St. Helens Improvement Act, 1869, and the St. Helens Corporation Acts, 1893, 1898, 1911, and 1921 with reference to New Streets and Buildings.

BYELAWS.

Byelaws 1 to 8 (both inclusive) of the Byelaws with respect to certain Offences and as to the Prevention of Nuisances arising from filth and the Keeping of Animals, etc.

Byelaws with respect to Nuisances made by the Council on the 1st October, 1930.

Byelaws as to Slaughterhouses, made by the Council on the 5th February, 1930.

Byelaws with respect to New Streets and Buildings in the Borough of St. Helens, made by the Council on the 5th October, 1927.

Byelaws with respect to the Drainage of Existing Buildings in the Borough of St. Helens made by the Council on 7th December, 1927.

Byelaws with respect to Tents, Vans, Sheds and similar Structures used for human habitation, made by the Council on the 28th July, 1926.

Byelaws with respect to Common Lodging Houses, made by the Council on the 2nd May, 1894.

Byelaws with respect to Houses let in Lodgings, made by the Council on the 2nd May, 1894.

Byelaws with respect to Female Domestic Servants' Registries, made by the Council on the 1st December, 1909.

Byelaws with respect to the Supply of Water, made by the Council on the 6th June, 1900.

Byelaws with respect to Cisterns, Waterclosets and Urinals, made by the Council on the 1st February, 1922.

Byelaws as to Spitting, made on the 2nd August, 1911.

REGULATIONS.

Regulations as to Public Abattoir and Cold Air Stores, made by the Council on the 2nd May, 1906.

The Borough of St. Helens (Notification of Measles, German Measles and Whooping Cough) Regulations, 1915, made by the Minister of Health on the 22nd June, 1915.

ORDERS—SHOP ACTS.

General Weekly Half-Holiday Order, made on the 7th August, 1912.

Weekly Half-Holiday Extension Order (Butchers and Chemists) made on the 4th December, 1912.

Closing Order (Motor, Cycle and Aircraft dealers) confirmed by the Home Secretary on the 30th January, 1913.

Closing Order (Tailors, etc. Shops) confirmed by the Home Secretary on the 10th December, 1915.

XIII.—INSPECTION AND SUPERVISION OF FOOD.

MEAT AND OTHER FOODS.—There is a municipal abattoir with cold stores attached. As pointed out in my Report last year, however, considerable improvements are required to bring the present premises to modern standards of efficiency, and I would again suggest that this question be considered at an early date.

The inspection and supervision of all meat at the abattoir is carried out by the Abattoir Superintendent, who is a qualified meat inspector.

The butchers using the abattoir employ their own slaughtermen, and these are now licensed yearly under the Slaughter of Animals

Act, 1933. During the year licences were granted to 28 slaughtermen employed at the Abattoir. All animals (including sheep) are stunned by captive bolt pistols before slaughter.

During the year the Abattoir was approved by the Cattle Committee appointed under the Cattle (Emergency Provisions) Act, 1934, as a Live-weight Certification Centre. The classes of cattle to which the Act relates are steers, heifers and cow-heifers.

In addition to the Public Abattoir there is one private slaughterhouse in the borough. This is licensed for the slaughter of pigs only and the licence comes up for review yearly. Licences under the Slaughter of Animals Act, 1933, were granted for a period of one year to three slaughtermen employed at this slaughterhouse. The electrical method for the stunning of pigs was adopted at these premises during the year, and is stated to have led to an improvement in the appearance and keeping quality of the meat.

During the year 292 visits for inspection purposes were made to this slaughterhouse and no infringements of the Byelaws with respect to Slaughterhouses or of the Public Health (Meat) Regulations, 1924, were found.

Table 33 shows the number of animals slaughtered in St. Helens and the approximate weight, in pounds, of meat found diseased.

Table 33.

Number of Animals slaughtered and amount of diseased meat condemned during the year, 1934.

						PRIVATE				
ABATTOIR.						SLAUGHTERHOUSE.				
			Number of Animals Slaugh- tered.	No. of Animals found diseased		Weight in lbs. of Meat Con- demned	Number of Animals Slaugh- tered.	No. of Animals found diseased		Weight in lbs. of Meat Con- demned
				Tuber- culosis	Other diseases.			Tuber- culosis	Other diseases.	
Beasts	.....	.....	3874	282	1102	89446	—	—	—	—
Calves	.....	.....	254	1	3	188	—	—	—	—
Sheep	.....	.....	1590	—	10	41	—	—	—	—
Pigs	.....	.....	4594	139	337	7748	2584	246	123	4760

The inspection and supervision of other foodstuffs in the borough, and of the premises in which it is prepared or sold, is undertaken by a specialist Food Inspector.

As mentioned in my Report last year all premises used for the preparation or manufacture of potted, pressed, pickled, or preserved meat, fish or other food intended for the purpose of sale, must now be registered with the Corporation. At the end of the year 185 premises were registered, of which 155 were fried fish shops, and 30 used for the preparation or manufacture of cooked meats.

During 1934, 4,338 visits were made by Inspectors to shops, stalls and other places where food is prepared or stored, as compared with 3,826 visits during 1933. The following is a brief summary of the work covered by these visits. Further details are given in the appropriate sections of the Report :—

Premises.	Visits	No. of offences against Acts, Orders &c.	No. of nuisances or defects found	No. of nuisances or defects remedied after service of notice
Private Slaughter houses	292	—	—	—
Fried Fish shops	328	—	—	—
Fishmongers and Greengrocers	911	49	—	—
Butchers shops	1132	8	4	4
Ice Cream shops	415	—	1	1
Bakehouses	283	—	14	14
Tripe Boilers	160	—	—	—
Food Preparing and Storing Places	817	21	3	3

The following are the total quantities of various classes of food-stuffs which were condemned during the year owing to being diseased or unsound :—

Meat	102,183 lbs.
Fish	5,771 „
Poultry, Game and Rabbits.....	8 „
Chocolates, Sweets, Biscuits, Tinned Goods and other foodstuffs of a miscellaneous character	410 „

Sale of Food Order, 1921.—*Labelling of Imported Meat*—

A distinct improvement in complying with the provisions of this Order was observed during the year. During 1934 it was found necessary to institute legal proceedings in one instance only. As the offender had been prosecuted on two previous occasions for similar offences, a fine of £5 was imposed.

The Order which was made by the Board of Trade in 1921 was revoked on January 7th, 1935, by the Sale of Food (Revocation) Order, 1935, and has been replaced by the Merchandise Marks (Imported Goods) No. 7 Order, 1934.

The latter Order differs in a number of important respects from the one revoked. The Sale of Food Order, 1921, required that imported meat exposed for sale by retail should bear a label with the word “ Imported ” or with a word or words disclosing the country of origin.

Under the Merchandise Marks (Imported Goods) No. 7 Order, 1934, the meat itself must, prior to importation, be marked with an indication of origin in the manner prescribed by the Order. When exposed for sale by retail such portions of meat which do not by reason of the method of preparation for sale bear any of the original markings must be marked with a ticket or label bearing the indication of origin. Under this Order the indication of origin means either the word “ Foreign ” or “ Empire ” or the name of the country of origin. The Order also extends the definition of meat to include edible offals.

Pamphlets explaining in detail the new requirements have been issued to all the traders concerned.

Public Health (Meat) Regulations, 1924.—Twenty-nine offences against these Regulations were found during the year. The offences consisted of :—

	No. of Offences
1. Premises not kept in a cleanly condition 	2

	No. of Offences
2. Walls and/or ceilings requiring cleansing and whitewashing	10
3. Unsuitable premises used for the storage of meat	1
4. Unsuitable receptacle for the storage of trimmings and refuse	6
5. Sanitary convenience communicating directly with room where food is stored or prepared for sale	4
6. Room not adequately ventilated	6

Though it was not found necessary to institute legal proceedings during the year, it will be seen from the number of infringements of these Regulations that there is still need in St. Helens for the exercise of greater care in the storage and handling of meat. It is satisfactory to be able to record, however, that a gradual improvement each year is being attained.

Agricultural Produce (Grading and Marking) Act, 1928.—More use is now being made in St. Helens than formerly of the special trade designations allowed by the above Act defining the quality of agricultural produce, but there is still considerable scope for improvement in this direction.

There are no premises registered for the cold or chemical storage of eggs.

Merchandise Marks Act, 1926.—The Orders which have so far been made under the Merchandise Marks Act, 1926, in regard to foodstuffs are :—

Order.	Relating to
The Merchandise Marks (Imported Goods) No. 3 Order, 1928	Honey. Fresh Apples.
The Merchandise Marks (Imported Goods) No. 5 Order, 1928	Currants, Sultanas, Raisins. Eggs in Shell. Dried Eggs. Oat Products.

Order.	Relating to
The Merchandise Marks (Imported Goods) No. 4 Order, 1929	Raw Tomatoes.
The Merchandise Marks (Imported Goods) No. 5 Order, 1930	Malt products.
The Merchandise Marks (Imported Goods) No. 8 Order, 1931	Imported frozen or chilled salmon or sea trout.
The Merchandise Marks (Imported Goods) No. 1 Order, 1932	Butter.
The Merchandise Marks (Imported Goods) No. 3 Order, 1934	Bacon and Ham.
The Merchandise Marks (Imported Goods) No. 5 Order, 1934	Dead Poultry.
The Merchandise Marks (Imported Goods) No. 7 Order, 1934	Meat.

These Orders require that any classes of foodstuffs to which they relate shall on importation, on exposure for sale, and when sold in quantities exceeding 14 lbs. in weight, be clearly marked with an indication of origin.

The Orders are now being more generally complied with than hitherto. In two instances, however, it was found necessary to institute legal proceedings and in one instance a warning was given by the Committee.

MILK SUPPLY.—At the close of the year there were registered under the Milk and Dairies (Amendment) Act, 1922, and the Milk and Dairies Order, 1926 :—

- 8 persons as cowkeepers and wholesale and retail purveyors of milk ;
- 3 persons as cowkeepers and wholesale purveyors of milk ;
- 10 persons as cowkeepers and retail purveyors of milk ;
- 388 persons as purveyors of milk ; and
- 85 premises as cowsheds or dairies.

A total of 902 inspections was paid by the sanitary inspectors to the cowsheds, dairies and milkshops during the year.

Approximately 307 cows are kept for dairy purposes within the borough, and these were regularly inspected by the veterinary inspector.

In each of my Annual Reports for some years past, I have recorded a gradual improvement in the production and handling of milk in St. Helens, and it is very satisfactory to report that the progress made during 1934 has been greater than that of any previous year.

There is no doubt that this improvement is mainly attributable to the series of clean milk competitions and other educational activities which have been organised in St. Helens in the past. The requirements imposed upon suppliers before approval is given for the supply of milk to schools under the Milk in Schools Scheme, and the strict supervision over these supplies which is maintained by the Local Authority, are other factors which have also materially contributed.

The most noticeable improvement has been in regard to equipment and premises. In a number of instances existing sterilizing plants have been replaced by newer and more efficient types, and the installation of artificial cooling and refrigerating plants—an expensive item of dairy equipment—is becoming general. Covered milking receptacles are also now mainly used. The present standard of dairy premises is now in many instances much higher than the minimum necessary to meet the requirements of the Milk and Dairies Order.

The fourth St. Helens Clean Milk Competition was held during the year and followed the lines of previous competitions; producers of non-graded milk in the Lancashire County Area were again invited to compete. Eight producers in the borough and four in the county area entered the Competition for the Hamblett Cup.

Arrangements were again made during 1934 for the Lancashire County Agricultural Staff to carry out advisory work in St. Helens in connection with milk production, and a member of that staff paid periodic visits to milk producers in the borough.

On October 1st the Milk in Schools Scheme of the Milk Marketing Board came into operation. This scheme provides that the source and quality of the milk supplied must be approved by the Medical Officer of Health. If sufficient supplies of graded milks had been available, approval would have been granted for those supplies only, but in order to meet the demand it was found necessary to extend approval to other sources of supply. In order, therefore, to ensure that these supplies were satisfactory, approval was made subject to the conditions set out in the following circular issued to Head Teachers, Milk Producers and Dairymen. As the Accredited Milk Producers' Scheme did not come into operation on the 1st January, 1935, no change has yet been made in the conditions.

COUNTY BOROUGH OF ST. HELENS.

MILK IN SCHOOLS SCHEME.

Information for the use of Head Teachers, Milk Producers and Dairymen.

Under the above scheme the Milk Marketing Board will not accept milk for rebate unless the source and quality of the supply have been approved by the Medical Officer of Health of the district in which the school is situate. The general conditions under which the Medical Officer of Health proposes to grant such approval in St. Helens until the 31st December, 1934, are that the Milk shall be :

- (1) Milk for which any form of licence has been granted under the Milk (Special Designations) Order, 1923 ; or*
- (2) Milk from producers who have gained at least 66% of the total possible marks in an approved Clean Milk Competition ; or*
- (3) Milk from producers whose premises and methods of production are subject to the supervision of the St. Helens Sanitary Authority and are satisfactory ; or*
- (4) Milk from other producers who comply with the conditions laid down in the Accredited Milk Scheme of the Milk Marketing Board.*

The Medical Officer of Health proposes that from January 1st, 1935, the only sources of supply which will be approved will be (a) milks sold under any licence granted in accordance with the Milk (Special Designations) Order, 1923, or (b) milk produced by Accredited Milk Producers, registered as such with the Milk Marketing Board.

The continuance of the approval will be subject to the following additional requirements being observed :

- (1) The milk supplied to the schools must be from the approved source only.*
- (2) The methods of production and handling shall be satisfactory and the milk shall be cooled to a temperature of 60° F immediately after milking.*
- (3) If the milk is delivered in bottles all such bottles shall be efficiently sterilised.*
- (4) The milk shall not contain tubercle bacilli or other pathogenic organisms.*
- (5) The milk shall contain not less than 3% of milk fat or 8.5% of non-fatty solids.*
- (6) The Milk shall comply with the following bacteriological standard :—*
 - (a) Bacterial count not exceeding 200,000 per c.c.*
 - (b) B. Coli absent in 1/100 c.c.*
- (7) The milk shall not be treated by heat other than by the process of pasteurisation as laid down by the Milk (Special Designations) Order, 1923, and by persons holding a pasteuriser's licence under that Order.*
- (8) The milk must be fresh and produced not earlier than the previous evening's milking.*
- (9) Any sickness of an infectious nature occurring on the farm or dairy or in the dwelling of any person engaged in the production or distribution of the milk shall at once be reported to the Medical Officer of Health of the district in which the farm or dairy is situate.*

(10) *The occurrence of any infectious disease amongst the cows must be notified without delay to the Medical Officer of Health of the district in which the farm is situate and the affected animal(s) must be immediately excluded from the herd.*

(11) *No milk shall be delivered from cows that :*

- (a) Have calved until after four clear days from calving ;*
- (b) Are in bad health ;*
- (c) Have been physicked until after twenty-four hours from such physicking ;*
- (d) Show any symptoms of disease of the udder.*

In the event of any breach of the above conditions the approval of the source of supply may be withdrawn.

Milk (Special Designations) Order 1923.—The following licences were granted during the year under the Milk (Special Designations) Order, 1923 :—

Producer's Licence to sell milk as " Grade A."	3
Licence to sell milk as " Certified "	1
Pasteuriser's Licence to sell milk as " Pasteurised "	2

It is anticipated that with the coming into operation of the Accredited Milk Scheme of the Milk Marketing Board the number of licences for the production of Grade A milk will be increased during the forthcoming year. One producer has already applied to the Ministry for a licence for the production of Certified milk.

Milk and Dairies (Consolidation) Act, 1915.—No infringements of this Act were found during the year.

Milk and Dairies Order, 1926.—In addition to the frequent inspections of dairies and cowsheds by the sanitary inspectors, all dairy cattle are examined periodically by the Veterinary Inspector and advisory visits are paid to farms by the agricultural staff of the Lancashire County Council. It will be seen, therefore, that adequate supervision of these premises is being maintained. Flagrant breaches of the Order are now rarely found and the comparatively few infringe-

ments noticed during the year were of a minor character only and mainly due to temporary abnormal circumstances.

Whilst St. Helens can claim to have reached a very high standard in regard to milk production and distribution, it is, however, as I have previously pointed out, dependent on outside sources for the greater proportion of its milk supply. Until these sources reach the same standard as the borough farms the milk supply will remain unsatisfactory. It is anticipated, however, that a considerable improvement will be effected when the Accredited Milk Scheme of the Milk Marketing Board comes into force.

With the recent extension of the borough five additional dairy farms came under the supervision of the Local Authority. Two of these could not be regarded as complying with the standard set in St. Helens for milk production, but in one instance the necessary alterations and improvements have now been carried out and it is hoped that improvements to the remaining farm will be commenced at an early date.

It is gratifying to be able to record that most of the milk sold by retail in St. Helens is now distributed in bottles, and the practice of serving milk in the street from open churns is gradually disappearing.

Bacteriological Examination of Milk.—In the routine examination of milk supplies 96 samples were sent for examination for the presence of tubercle bacilli by guinea pig inoculation tests. In addition, a further 20 samples taken in suspected cases or in following up previous samples were examined. Dealing only with the 96 routine samples and deducting from them 3 samples in respect of which the guinea pigs died too soon for a definite diagnosis to be made, positive evidence of tubercle bacilli was found in 5 samples (5.3%). This is considerably lower than the corresponding percentage for the previous year (11.0%) and below the average throughout England and Wales.

Table 34 shows the percentages of infected samples and the areas of production of the samples examined during the past four years.

Tubercle Bacilli in Milk.

Areas of production of samples examined.

Area	Year	No. of routine samples examined	No. of samples in respect of which the guinea pig died too soon for a definite diagnosis to be made	No. of samples in respect of which a definite diagnosis was made	Samples shewing positive evidence of tubercle bacilli	
					Number	Percentage
1931	St. Helens.....	4	—	4	—	0.0%
	Lancashire C. C.	24	1	23	1	4.3%
	Cheshire C.C.	64	—	64	1	1.6%
	* Pasteurised	—	—	—	—	—
Total		92	1	91	2	2.2%
1932	St. Helens.....	27	—	27	2	7.4%
	Lancashire C. C.	29	1	28	6	21.4%
	Cheshire C. C.	34	—	34	3	8.8%
	* Pasteurised	4	—	4	—	0.0%
Total		94	1	93	11	11.8%
1933	St. Helens.....	15	—	15	1	6.7%
	Lancashire C.C.	33	—	33	6	18.2%
	Cheshire C.C.	30	2	28	1	3.6%
	* Pasteurised	6	—	6	1	16.6%
Total		84	2	82	9	11.0%
1934	St. Helens.....	16	1	15	3	20.0%
	Lancashire C.C.	41	1	40	1	2.5%
	Cheshire C.C.	31	—	31	1	3.2%
	* Pasteurised	8	1	7	—	—
Total		96	3	93	5	5.3%

* As the pasteurised milk was mixed milk from several areas the area of production of the samples examined was unknown.

From this table it will be seen that compared with the previous years there was a very considerable increase in 1934 in the percentage of samples produced in St. Helens which were found positive. This was mainly due to concentration during the year of sampling at sources which in the opinion of the Department were most likely to be producing infected milk.

With the increased consumption of milk by school children consequent upon the inauguration of the Milk in Schools Scheme, the problem of the eradication of tuberculosis from milk supplies assumes greater importance. The Accredited Milk Scheme of the Milk Marketing Board will, no doubt, do much to assist in this direction, but until it is incumbent upon all Local Authorities to provide an efficient veterinary service combined with the systematic biological examination of milk samples, the position will remain unsatisfactory. Whether the recent Tuberculosis (Attested Herds) Scheme of the Ministry of Agriculture will contribute to any material improvement in this respect is doubtful, as the inducement held out to farmers, viz., a bonus of 1d. per gallon for all milk sold from such herds, appears small.

The quarterly veterinary inspection of all dairy cattle and the frequent sampling of milk for examination for the presence of tubercle bacilli have been of value in raising the standard of dairy cattle in St. Helens, as farmers now realize that heavy losses may be incurred by the purchase of inferior animals.

In addition to the samples taken for examination for tubercle bacilli and samples taken in connection with the clean milk competition, 37 samples of milk were examined during the year for bacterial count and the presence of bacillus coli. This examination is a measure of the cleanliness or otherwise of the milk production, the presence of bacillus coli indicating particularly manurial contamination. The results of these examinations are shown in Table 35.

TABLE 35.
Bacterial Counts in Samples of Graded and Ungraded Milks.

No. of Samples	Grade	No. of bacteria per c.c.				Presence or absence of colon bacilli.					
		Under 30,000	30,000 to 100,000	100,000 to 200,000	Over 200,000	Absent in 1 c.c.	Present in				
							1 c.c.	10 c.c.	100 c.c.	1,000 c.c.	10,000 c.c. 100,000 c.c.
10	Pasteurised	7	1	—	2	4	1	1	2	1	1
23	Grade A.	15	5	—	3	7	4	4	6	2	—
4	Ungraded and Untreated	3	3	—	1	—	1	1	2	—	—

Under the Milk (Special Designations) Order, 1923, Grade A milk must not contain more than 200,000 bacteria per c.c. and colon bacilli must be absent in 1/100 c.c. Pasteurised milk must not contain more than 100,000 bacteria per c.c. There is no bacterial standard for ungraded milk.

FOOD AND DRUGS (ADULTERATION) ACT, 1928, etc.—Food and Drugs (Adulteration) Act, 1928.—During the year, 347 formal samples and 116 informal samples were taken for analysis.

The natures of the samples taken, with the results of examination by the Public Analyst, are shown in Table 36.

Table 36.

Number of samples taken under the Food and Drugs (Adulteration) Act, 1928, during 1934, and results of analysis by the Public Analyst.

ARTICLE	Number of Samples Taken		Number Genuine		Number Adulterated	
	Formal	Informal	Formal	Informal	Formal	Informal
Beef Suet	1	—	1	—	—	—
Cereals :						
Cornflour	4	1	3	—	1	1
Pearl Barley	4	5	3	4	1	1
Rice	3	3	3	3	—	—
Self-Raising Flour	2	1	2	1	—	—
Cocoa	2	—	2	—	—	—
Coffee	5	4	5	4	—	—
Condiments	11	3	11	3	—	—
Confectionery, etc.	4	—	3	—	1	—
Cream of Tartar	1	1	1	1	—	—
Dried Fruits, Spices, etc.	8	7	8	7	—	—
Dried Mint Herbs	3	—	2	—	1	—
Drugs, etc.	5	20	5	20	—	—
Jams and Jellies	3	9	2	9	1	—
Lard	6	1	6	1	—	—
Margarine	4	1	4	1	—	—
Milk and Milk Products :						
Butter	9	5	9	5	—	—
Cheese	4	3	4	3	—	—
Cheshire Cheese	4	—	4	—	—	—
New Milk	205	24	193	24	12	—
Condensed Milks	3	1	3	1	—	—
Fresh Cream	2	2	1	1	1	1
Tinned Cream	3	—	—	—	3	—
Pickles	2	3	2	3	—	—
Potted and Tinned Meat and Fish	8	7	8	7	—	—
Sausages	6	2	6	2	—	—
Sweets	2	3	2	3	—	—
Sugar.....	7	2	7	2	—	—
Tea	2	—	2	—	—	—
Tripe	7	—	7	—	—	—
Treacle	1	2	1	2	—	—
Tinned Fruits, etc.	11	6	11	6	—	—
Wines and Spirits :						
British Sherry	1	—	1	—	—	—
Fruit Wine	1	—	1	—	—	—
Ginger Flavour Wine ..	1	—	1	—	—	—
Irish Whiskey	1	—	1	—	—	—
Rum	1	—	1	—	—	—
Total	347	116	326	113	21	3

The appended statement shows the action taken in the case of adulterated samples taken formally :—

(a) Legal proceedings instituted under the Food and Drugs (Adulteration) Act, 1928.

Sample		
No.	Article.	Adulteration and Result of Proceedings.
557	New Milk	20% added water. Fined £10 and costs.
879	Fresh Cream Cakes	Contained no genuine cream. Fined 10/- and costs.
880	Fresh Cream Jellies	Contained no genuine cream. Fined 10/- and costs.

(b) No legal proceedings instituted, but in all cases the sellers were warned by the Committee.

Sample		
No.	Article.	Adulteration.
443	Tinned Thick Rich Cream	Contained 26.4% of milk fat. Amount insufficient to justify the designation "Thick Rich Cream."
445	Tinned Pure Thick Cream	Contained 20.7% of milk fat. Amount insufficient to justify the designation "Pure Thick Cream."
460	Tinned Pure Thick Cream	Contained 23.5% of milk fat. Amount insufficient to justify the designation "Pure Thick Cream."
487	Dried Mint Herbs	Contained 10% Ailanthus leaves.
502	New Milk	21% deficient in milk fat.
M.D.A. 60	New Milk	10% deficient in milk fat.
(Appeal to Cow Sample)		
544	New Milk	18% deficient in milk fat.
594	Cornflour	Contained 4.5% Sodium Bicarbonate.
595	Cornflour	Contained 0.25% Sodium Bicarbonate.

<u>Sample</u>		<u>Adulteration.</u>
<u>No.</u>	<u>Article.</u>	
M.D.A. New Milk 62A (Taken in course of delivery)		8% deficient in milk-fat.
634	New Milk	2% deficient in milk fat.
637	New Milk	6% deficient in milk fat.
683	Pearl Barley	Contained 0.9% Talc.
722	Pearl Barley	Contained 0.8% Talc.
729	New Milk	8% deficient in milk fat.
807	New Milk	8% deficient in milk fat.
851	New Milk	4% deficient in milk fat.
859	New Milk	1% deficient in milk fat.
871	New Milk	4% deficient in milk fat.

Examination of Milk for Dirt.—No samples of milk were submitted to the Public Analyst for examination for dirt. 54 samples were, however, taken by the Department in connection with the Clean Milk Competition and examined by the sediment tester. The discs are mounted and framed, and form a permanent record of the progress made each year in clean milk production.

The Public Health (Condensed Milk) Regulations, 1923 and 1927.—No infringements of these Regulations were found during the year.

The Public Health (Dried Milk) Regulations, 1923 and 1927.—No infringements of these Regulations were found.

Artificial Cream Act, 1929.—No premises are registered under this Act in St. Helens and no infringements were found.

Ice Cream Premises.—Under the St. Helens Corporation Act, 1933, manufacturers and vendors of ice cream and the premises used by them must now be registered with the Local Authority who have power either to refuse registration or to cancel registration.

Numerous applications for registration were received during the year, but many of these were withdrawn when the Local Authority's requirements became known. In one instance where an application for registration was persisted in this was refused by the Health Committee on the grounds that the premises were not suitable. The standard insisted upon for premises and equipment is the same as that required for dairies, and no registrations have been granted where it was intended that any processes connected with the manufacture or distribution were to be carried out in any part of household premises.

The following are the particulars of the registrations granted during the year :—

Manufacturers and Vendors	36
Vendors only	31
Premises for manufacture and sale	36
Premises for sale only	31

A total of 415 visits of inspection was made during the year.

Public Health (Preservatives in Food) Regulations.—

An informal sample of Fresh Cream taken during the year was found upon analysis by the Public Analyst to contain 0.43% of Boron Preservative. In consequence a formal sample was taken and was found to contain 0.34%. Legal proceedings were instituted and a fine of £2 and costs was imposed.

Fertilisers and Feeding Stuffs Act, 1926.—9 informal samples of fertilisers and feeding stuffs were taken under the above Act, during 1934, and all were found to be genuine.

No infringements of the Act in respect of labelling were found during the year.

Poisons and Pharmacy Act, 1908.—Two licences were again renewed during the year under Section 2 (1) of the Poisons and Pharmacy Act, 1908, for the sale of poisonous substances for use exclusively in agriculture and horticulture.

No infringements of this Act were found during the year.

BAKEHOUSES.—There are 93 bakehouses on the Register, one of which is underground. Mechanical power is used in 31 instances.

283 visits of inspection were made during the year and 14 sanitary defects were found and remedied.

DISEASES OF ANIMALS ACTS.—**Tuberculosis Order, 1925.**—During the year 4 notifications were received under the Tuberculosis Order, 1925, of cattle within the borough suspected to be suffering from tuberculosis. Of these, 1 was notified by the owner concerned, 1 was discovered by the Council's Veterinary Inspector and 2 were discovered as a result of the routine bacteriological examination of milk in St. Helens. In each instance slaughter was carried out by the Council at the Public Abattoir and evidence of tuberculosis was found on post-mortem examination. The total compensation paid to the owners of the animals was £11/15/0.

Particulars relative to the animals slaughtered, the form of the suspected disease, and the classification of the stage of the disease as revealed at the post-mortem examination, are given in the following summary :—

Description	Form of Suspected Disease.	Classification of the disease at post-mortem examination.
Cow in Milk	Tuberculosis with chronic cough.	Advanced.
do.	Giving tuberculous milk	do.
do.	Tuberculosis with chronic cough.	do.
do.	Giving tuberculous milk	do.

Anthrax.—No case of Anthrax was reported during the year.

Swine Fever.—21 cases of suspected Swine Fever were reported during the year. In no instance was the disease confirmed by the Ministry of Agriculture.

XIV.—SANITARY CIRCUMSTANCES OF THE AREA.

WATER.—The water supply is from deep wells and boreholes in new red sandstone at Eccleston Hill, Whiston, Knowsley, Kirkby, and Melling, supplemented by a supply from the Liverpool Corporation Rivington Main, and water from coal measures at Collins Green. Despite the improvements that have been made in recent years there is still, however, shortage of water supply to several parts of the town. With the large number of houses now being erected, and the possibility of an even larger number to be erected in the near future, this is a matter which should receive immediate attention.

The water is of a high degree of purity, though hard. The total hardness is reduced from 22.6 degrees to 10.5 by a softening process before distribution.

RIVERS AND STREAMS.—The position outlined under this heading in previous Reports is substantially unchanged.

SEWERS AND SEWAGE DISPOSAL.—The position in regard to sewers and sewage disposal remains substantially unaltered, though work is now in progress on the scheme for the provision of a separate purification station for dealing with sewage from the Sutton Manor district. During the current year also it was decided to appoint a special staff to investigate and report on the whole of the sewerage question in St. Helens, and it is hoped that as a result of their investigations it will be possible to formulate a comprehensive scheme in the near future.

Apart from the problem of the pollution of canals and streams at present occurring, one of the most serious problems is the erection of houses in districts where no sewers are available. These are at present being provided with septic tanks, and if nuisance is to be avoided constant supervision of these will be necessary.

CLOSET ACCOMMODATION.—During the year, 4 tub and pail closets and 19 privy middens were converted to the fresh water carriage system. In addition 16 houses provided with tub

and pail closets and 10 houses with privy middens were demolished under the Housing Act, 1930. It is estimated that there are still 445 houses with privy middens and 167 houses with tub and pail closets, and there are in addition, 58 pail closets and one privy midden at various schools and works.

No further conversion can at present be undertaken owing to the lack of adequate sewers, but it is hoped that this obstacle will, in some measure, be overcome in the near future. There will, however, be a progressive reduction in the number of these closets as the slum clearance programme proceeds.

Table 37 shows the number of conversions completed each year since 1904.

Table 37.

The number of conversions to the water carriage system completed each year since 1904.

Year	Privies	Tub and pail closets	Total
1904	69	67	136
1905	80	64	144
1906	47	19	66
1907	237	125	362
1908	243	24	267
1909	106	38	144
1910	179	33	212
1911	270	129	399
1912	301	691	992
1913	460	646	1,106
1914	691	976	1,667
1915	300	380	680
1916	57	112	169
1917	45	103	148
1918	18	21	39
1919	148	142	290
1920	284	369	653
1921	75	198	273
1922	45	350	395
1923	132	367	499
1924	160	685	845
1925	82	278	360
1926	39	238	277
1927	69	264	333
1928	219	229	448
1929	121	103	224
1930	29	95	124
1931	37	118	155
1932	14	3	17
1933	—	22	22
1934	19	4	23

SCAVENGING.—The removal and disposal of house refuse is carried out by the Borough Engineer's Department. There are no refuse disposal works. Approximately 60% of the house refuse in the borough is tipped at the Parr Depot, 25% on land situate in Merton Bank Road, and 15% on land in Eltonhead Road.

During 1934, 206 ashpits were abolished and 220 galvanised metal dustbins were provided as compared with 348 and 387 respectively for the previous year.

SANITARY INSPECTION OF THE AREA.—The total number of visits paid by sanitary inspectors during the year was 33,006. The nature of these inspections is shown in Table 38, and Table 39 contains a list of the notices served and the results of such notices.

TABLE 38.

Number and nature of inspections during 1934.
Complaints of Nuisances.

Number of Complaints Investigated :—

1. Housing Defects	724
2. Choked and Defective Drains	433
3. Emission of Smoke	5
4. Accumulations of Offensive Matter	27
5. Miscellaneous	139

Inspections re Sanitation and Food Supply.

Dwelling Houses inspected	2757
Common Lodging Houses	367
Houses-let-in-lodgings	77
Common yards, back-roads and passages	552
Horse-manure middensteads	52
Fried Fish Shops	328
Fishmongers and Greengrocers	911
Butcher's Shops	1,132
Ice Cream Shops	415
Factories	39
Workshops	82
Bakehouses	283
Workplaces.....	5
Offensive Trades	160
Private Slaughterhouses	292
Food Preparing and Storing Places	817
Places of Public Entertainment	133
Tents, Vans and Sheds	48
Schools	—
Testing Drains :—	
By Smoke	60
By Water	81
By Coloured Water	24
By Breaking Down	12

Table 38—Continued.

Inspections re Sanitation and Food Supply.					
Ashes Receptacles .....	.....	.....	.....	.....	791
Dairies, Cowsheds and Milkshops .....	.....	.....	.....	.....	902
Samples of Milk procured for :—					
Chemical Analysis .....	.....	.....	.....	.....	229
Bacteriological Examination .....	.....	.....	.....	.....	116
Bacterial Content .....	.....	.....	.....	.....	91
Sediment .....	.....	.....	.....	.....	61
Samples of Other Food and Drugs under the Food & Drugs					
(Adulteration) Act, 1928, etc. ....	.....	.....	.....	.....	234
Samples of Fertilisers and Feeding Stuffs .....	.....	.....	.....	.....	9
Samples of Sewage for Analysis .....	.....	.....	.....	.....	—
Conversions .....	.....	.....	.....	.....	53
Samples of Water procured .....	.....	.....	.....	.....	15
Insufficient Water Supply .....	.....	.....	.....	.....	4
Smoke Observations .....	.....	.....	.....	.....	13
Visits to Glass Works (Straw Sterilization) .....	.....	.....	.....	.....	44
Enquiries re Brokers' Licences .....	.....	.....	.....	.....	16
Visits to work in progress (P.H. Acts, Housing Acts, Conversions, etc.)	.....	.....	.....	.....	17,954
Rag Flock Acts .....	.....	.....	.....	.....	—
Sanitary Accommodation in Shops .....	.....	.....	.....	.....	9
Rats and Mice (Destruction) Act .....	.....	.....	.....	.....	44
Miscellaneous Visits .....	.....	.....	.....	.....	3,794
					33,006

TABLE 39.

Sanitary Defects—Number of notices served during 1934, and results.

Subject of Notice	Pre-liminary Notices	Statutory Notices	Number complied with	Number outstanding at end of year	Prosecutions
Ditches requiring cleansing	1	—	1	—	—
Defective drains	156	15	157	2	—
Insufficient surface water drainage	—	—	—	—	—
Choked drains	112	18	109	3	—
Insufficient closet accommodation	5	—	5	2	—
Absence of proper sink	80	31	74	7	—
Conversion of trough closets to water closets	—	—	—	—	—
Defective trough closets	3	—	3	—	—
Defective water closets	175	22	159	16	—
Defective pail closets	2	—	2	—	—
Defective privy middens	20	—	20	4	—
Defective gullies and dishstones	167	31	157	12	—
Defective sink waste pipes	520	80	507	26	—
Defective W.C. cisterns and flushing fittings	140	22	145	5	—
Defective urinals	2	—	2	—	—
Defective soil pipes	17	4	14	3	—
Sink waste pipes connected with drains	—	—	—	—	—
Yards and passages unpaved	4	—	2	12	—
Defective vard paving	353	66	324	31	—

Table 39.—Continued.

Dampness arising from :—					
Defective roofs	1140	216	1097	88	—
Defective eavesgutters	1191	240	1173	57	—
Defective downspouts	599	107	557	80	—
Defective external pointing	1312	235	1301	64	—
Insufficient lighting of rooms.....	—	—	—	—	—
Insufficient ventilation of rooms	81	3	66	15	—
Absence of ventilated foodstores	—	—	—	—	—
Unventilated foodstore	20	—	20	—	—
Insufficient water supply	1	—	1	—	—
Defective manure middensteads	—	—	1	2	—
Dwelling houses to be whitewashed	5	—	2	3	—
Defective chimney flues	56	9	53	11	—
Defective ashpits to be repaired	77	19	67	10	—
„ „ to be abolished.....	109	—	206	102	—
Galvanised Metal Dust Bins to be provided	182	—	220	39	—
Absence of ashes accommodation	54	16	45	32	—
Disused ashpits abolished	2	—	2	—	—
Defective window sash-frames and sashcords	1780	437	1725	72	—
Defective floors	697	144	649	52	—
Defective stairs	163	29	159	8	—
Defective internal plaster work	1296	232	1231	95	—
Defective fireplaces	611	105	598	13	—
Defective washboilers	402	82	390	12	—
Defective doors, cupboards, &c.	622	96	556	66	—
Defective gas pipes and fittings	49	12	49	—	—
Defective water pipes and fittings.....	20	2	20	—	—
Defective yard division walls	157	28	127	39	—
Dangerous and defective chimney stacks	80	12	77	3	—
Fractured internal walls	67	14	72	10	—
Defective and bulging external walls	77	28	86	5	—
Filthy condition of premises	80	1	88	3	—
Accumulation of manure or offensive matter	23	2	30	4	—
Keeping of animals, &c.	33	—	31	7	—
To abate overcrowding of dwelling houses	6	1	8	6	—
Miscellaneous	461	91	442	29	—
Contraventions of :—					
Milk and Dairies Order, 1926	22	—	16	6	—
Milk (Special Designations) Order, 1923	1	—	1	—	—
Public Health (Condensed Milk) Regulations, 1923 and 1927 ...	—	—	—	—	—
Artificial Cream Act, 1929	—	—	—	—	—
Public Health (Meat) Regulations, 1924	39	—	32	7	—
Merchandise Marks Act, 1926	49	—	49	—	2
Agricultural Produce (Grading and Marking) Act, 1928	—	—	—	—	—
Sale of Food Order, 1921	11	—	11	—	—
Public Health (Preservatives, &c. in Food) Regulations.....	1	—	1	—	—
Factory and Workshop Acts	21	—	33	—	—
Contraventions of Bye-laws :—					
Common Lodging Houses	—	—	—	—	—
Houses-let-in-lodgings	—	—	—	—	—
Tents, vans, sheds	—	—	—	—	—
Slaughterhouses.....	—	—	—	—	—
Prevention of Nuisances	16	—	13	6	—
Drainage of existing buildings	—	—	—	—	—
	13370	2450	12986	1069	2

Referred to other Departments.

Choked Street Gullies, &c., reported to Borough Engineer.....	18
Waste Water reported to Water Department	167
Dangerous structures reported to Borough Engineer	9
Escapes of Coal Gas reported to Gas Department	41
Choked Sewers reported to Borough Engineer	25
Insufficient water supply reported to Borough Engineer	—
Unauthorised Erections reported to Borough Engineer	1
Choked Drains, etc. reported to Borough Engineer (Corporation property)	—
Unpaved Passages reported to Borough Engineer	—

During the year, 433 complaints of choked drains were made to the Department. Of this number, 321 drains were freed from obstruction by members of the staff of the sanitary department, thus obviating the necessity for serving notices upon the owners.

SMOKE ABATEMENT.—There is urgent need in St. Helens for educational activities in connection with smoke abatement, and these activities should include the formation of classes for stokers in Fuel Economy and Boiler House Practice. Much of the black smoke produced is due to the inefficient hand-firing of steam raising plants, and the formation of these classes would not only result in reducing the present excessive emission of such smoke, but would also mean considerable economies to the manufacturers themselves.

In order to bring St. Helens into line with other constituent authorities comprising the West Lancashire and Cheshire Regional Smoke Abatement Committee, it will be necessary, in the near future, to consider the adoption of a byelaw regulating the emission of black smoke.

FACTORIES AND WORKSHOPS.—(a) Factories—One defect remediable under the Public Health Acts was reported by H.M. Inspector of Factories, and this was remedied during the year.

(b) Workshops—The number of workshops registered is 159 and Table 40 shows the classes of such workshops.

Table 40.
Registered workshops.

Workshops on the Register (s. 131) at the end of the year.	Number.
Dressmakers and mantle making	4
Milliners	10
Tailors	12
Hosiery Knitters	—
Joiners, builders, cabinet-makers and plumbers, etc.	22
Blacksmiths, wheelwrights, coach builders and masons	7
Weighing machine repairers	2
Cloggers and boot repairers	56
Cycle Makers	3
Tripe Dressers	2
Herbal Brewers	7
Seltzogene charge maker	1
Cab washing	2
Saddler	1
Sundries	22
Ice Cream Makers	3
Workshop Laundries	5
Total Number of Workshops on Register	159

(c) Outworkers—No lists of outworkers were received from employers during the year.

Table 41 gives particulars of the administrative action taken under the Factory and Workshop Act, 1901.

Table 41.

Factories, Workshops and Workplaces.

1.—Inspection of Factories, Workshops, and Workplaces, including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises (1)	Number of		
	Inspections (2)	Written Notices (3)	Occupiers Prosecuted (4)
Factories (including Factory Laundries)	228	5	—
Workshops (including Workshop Laundries)	628	16	—
Workplaces (other than Outworkers' premises)	5	—	—
Totals	861	21	—

Table 41—Continued.

2.—Defects found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects.			Number of offences in respect to which Prosecutions were instituted.
	Found.	Remedied.	Referred to H.M. Inspector.	
(1)	(2)	(3)	(4)	(5)
<i>Nuisances under the Public Health Acts—*</i>				
Want of cleanliness	12	20	—	—
Want of Ventilation	2	2	—	—
Other nuisances.....	4	8	—	—
Sanitary accommodation— insufficient	1	1	—	—
unsuitable or defective	1	1	—	—
not separate for sexes	—	—	—	—
<i>Offences under the Factory and Workshop Acts—</i>				
Illegal occupation of underground bakehouse	1	1	—	—
Totals	21	33	—	—

* Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—Outwork in unwholesome premises, Section 108—Nil.

PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYELAWS OR REGULATIONS.—Offensive Trades.—There are 5 offensive trades in the borough, consisting of 4 tripe boilers and 1 gutscraper.

During the year, 160 visits were paid to premises of this nature.

Tents, Vans, Sheds, etc.—There were, at the end of the year, known to be 50 of these structures used as permanent habitations.

Many of these structures are without adequate closet accommodation, house refuse accommodation, water supply or drainage.

The present housing shortage is to a great extent responsible for the continued existence of these structures, and though useful powers have been obtained under the St. Helens Corporation Act, 1933, no measures for dealing with them can be regarded as wholly effective which do not provide for the re-housing of persons who will be displaced. It is expected that with the passing of the Housing Act, 1935, this difficulty will to some extent be removed.

Regular inspections of these premises have been made by the staff during the year and 48 visits were paid.

Houses-Let-in-Lodgings.—Only 12 premises are at present registered as houses-let-in-lodgings, but there are others which are known to be used for the purpose but which cannot be dealt with under the existing byelaws owing to their rateable values and rents being above the prescribed limit. At the end of the year the revised byelaws submitted to the Ministry of Health were still under consideration, but it is hoped they will become operative in the near future.

77 visits were paid to registered premises during 1934.

Common Lodging Houses.—The number of premises registered as common lodging-houses during the year was six, as compared with twelve at the end of 1933. This reduction is due to the higher standard of sanitary accommodation and amenities demanded for these premises consequent upon the increased powers obtained by the St. Helens Corporation Act, 1933. In seven instances where the Local Authority's standard could not be attained, applications for registration were either withdrawn or were refused by the Health Committee.

The additional improvements and alterations now required for these premises are set forth in my Annual Report for last year, and in each case where registration has been granted these have

been provided. The standard of the housing accommodation provided by the existing common lodging-houses is now high, and there is no doubt that the amenities provided have resulted in increased comfort and convenience for the lodgers.

One new registration was granted during the year for premises not previously used as a common lodging-house.

Revised byelaws for controlling common lodging-houses are still under consideration by the ministry.

All registered premises were regularly inspected during the year, 367 visits being paid for the purpose.

Pig-keeping.—The Byelaws obtained in December, 1930, for the control of pig-keeping appear to be very effective. There were 40 persons in the borough known to be engaged in the keeping of pigs at the end of the year and on the whole no nuisances are being caused.

OTHER SANITARY CONDITIONS.—Rats and Mice Destruction Act, 1919.—The duties of Rat Officer under the Rats and Mice Destruction Act, 1919, are now carried out by the Chief Sanitary Inspector.

44 complaints of infestation of premises by rats were received during the year. Upon investigation of these complaints it was found that in most instances the cause of infestation was either defective drains or sewers in the immediate neighbourhood of the premises concerned. When these defects were made good no further complaints were received.

Shops Act, 1934.—This Act, which came into operation on December 30th, 1934, places upon the Sanitary Authority the duty of enforcing the provisions of the Act relating to the ventilation and temperature of shops and to the provision of sanitary conveniences.

The administration of the Act will add very considerably to the work of the sanitary staff during the forthcoming year.

Places of Public Entertainment.—133 visits were paid to Places of Public Entertainment during 1934. The condition of these premises throughout the year was found to be generally satisfactory.

Canal Boats.—No canal boat was inspected during the year, and it would appear that for the time being the canal has fallen into disuse.

Mortuary.—A public mortuary with post-mortem room is maintained behind the Town Hall and is under the supervision of the Medical Officer of Health. During the year 43 bodies were received into the mortuary and 24 post-mortem examinations were conducted.

Arrangements for the Disposal of the Dead.—The cemetery provided and maintained by the Local Authority now extends to approximately 56 acres, of which approximately 32 acres are still available for burial purposes.

In addition, private cemeteries are still in use in connection with the following churches :—St. Peter's, Parr ; St. Nicholas's, Sutton ; St. Thomas's, Windsor Road ; St. Anne's, Sutton ; and Windleshaw Abbey.

The Rag Flock Acts, 1911 & 1918.—No sample of rag flock was taken during the year.

Sanitary Condition of Schools.—During 1934 there were 40 public elementary schools, with 83 departments, in the borough.

Conditions in council schools are on the whole good, all these being of fairly recent construction. In some of the older schools, however, pail closets are still in existence, whilst in others trough closets with automatic flushing cisterns are still being used. I would urge that wherever possible the remainder of the unsatisfactory types of closets should be replaced.

XV.—HOUSING.

STATISTICS.—Of the 343 houses erected during 1934, 48 were erected by the Local Authority and 295 by private or commercial enterprise.

Table 42 shows the number of dwelling houses erected in each ward since 1904.

Table 42.

The wards of the borough in which dwelling houses have been erected during the years mentioned.

Year	North Eccles- ton	South Eccles- ton	Central	North Windle	South Windle	Hard- shaw	East Sutton	West Sutton	Parr	Total
1904	105	53	7	37	18	47	59	1	70	397
1905	19	93	1	44	16	90	42	10	54	369
1906	11	51	—	31	13	31	73	24	39	273
1907	22	38	—	26	—	22	77	3	29	217
1908	2	52	—	4	2	27	22	—	20	129
1909	—	36	—	10	—	10	6	3	10	75
1910	2	31	—	10	—	24	18	—	25	110
1911	14	20	—	—	—	30	75	26	12	177
1912	35	28	—	4	—	26	28	58	1	180
1913	10	31	—	—	3	19	14	99	6	182
1914	10	42	—	9	16	14	20	63	29	203
1915	6	9	—	26	1	2	8	25	27	104
1916	—	12	—	1	1	2	4	16	16	52
1917	—	—	—	—	—	—	—	9	—	9
1918	—	—	—	—	—	—	—	3	—	3
1919	—	1	3	—	—	—	—	—	—	4
1920	—	—	—	—	—	—	—	—	—	—
1921	—	1	—	41	—	—	—	6	—	48
1922	—	1	—	164	—	—	—	—	—	165
1923	1	5	2	2	—	2	—	33	—	45
1924	2	24	—	25	—	—	2	45	5	103
1925	8	76	—	90	—	1	9	48	15	247
1926	19	172	—	106	16	4	19	63	51	450
1927	33	189	—	125	3	68	160	14	56	648
1928	12	116	3	237	5	2	97	13	335	820
1929	4	219	—	35	—	21	26	5	185	495
1930	24	148	1	39	—	53	41	3	54	363
1931	79	61	—	52	1	15	45	29	17	299
1932	449	77	1	10	—	27	69	37	3	673
1933	115	56	2	20	—	34	69	1	46	343
1934	41	43	—	52	—	20	100	13	74	343

A statement as to the number of houses erected with and without State assistance, together with a summary of the work of the department in regard to housing, is given in Table 43.

Table 43.**Housing.**

Number of new houses erected during the year :—

(a) Total (including numbers given separately under (b))	343
(b) With State assistance under the Housing Acts :	
(i) By the Local Authority	48
(ii) By private or commercial enterprise	—
(c) Without State Assistance under the Housing Acts :	
(i) By the Local Authority.....	—
(ii) By private or commercial enterprise.....	295

1.—Inspection of dwelling-houses during the year :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	2757
(b) Number of inspections made for the purpose.....	20711
(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	331
(b) Number of inspections made for the purpose	3708
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation.....	150
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation.....	2578

2.—Remedy of Defects during the year without service of formal notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers.....	2151
--	------

3.—Action under Statutory Powers during the year :—

A.—Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930 :—

- | | |
|--|------|
| (1) Number of dwelling-houses in respect of which notices were served requiring repairs..... | nil. |
| (2) Number of dwelling-houses which were rendered fit after service of formal notices :— | |
| (a) By owners | nil. |
| (b) By Local Authority in default of owners..... | nil. |

B.—Proceedings under Public Health Acts :—

- | | |
|--|------|
| (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied | 397 |
| (2) Number of dwelling-houses in which defects were remedied after service of formal notices :— | |
| (a) By owners | 333 |
| (b) By Local Authority in default of owners..... | nil. |

C.—Proceedings under Sections 19 and 21 of the Housing Act, 1930 :—

- | | |
|--|----|
| (1) Number of dwelling-houses in respect of which Demolition Orders were made..... | 6 |
| (2) Number of dwelling-houses demolished in pursuance of Demolition Orders..... | 33 |

D.—Proceedings under Section 20 of the Housing Act, 1930 :—

- | | |
|---|------|
| (1) Number of separate tenements or underground rooms in respect of which Closing Orders were made | nil. |
| (2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit | nil. |

SLUM CLEARANCE.—In the Appendix to my Annual Report for last year I gave detailed particulars of the Council's proposals for dealing with slum clearance in St. Helens consequent upon the Housing Survey made in 1933.

The effect of these proposals is that during the five year period 1934-1938, 202 houses will be dealt with by means of 32 small clearance schemes, and 53 individual unfit houses under Section 19 of the Housing Act, 1930. In addition, it is anticipated that 106 back-to-back houses will be converted into through houses, and 6 houses which are parts of premises will be closed under Section 20. These proposals involve the displacement of 1,422 persons.

The programme arranged for carrying out these proposals was prepared on the basis of dealing with an equal number of houses each year. During 1934, the first year of the period, however, eleven areas, involving 92 houses, were represented as clearance areas and six individual unfit houses and 52 back-to-back houses were represented under Section 19, and this involved the displacement of 540 persons. It will be seen, therefore, that very satisfactory progress towards completion of the Council's programme was made during that year.

Clearance Areas.—The following are the particulars of the clearance areas dealt with during 1934 :—

College Street Area—Official Representation of this area which contained 34 dwellinghouses was made on 27th March, 1934, and a Clearance Order in respect of three houses and a Compulsory Purchase Order in respect of other 10 houses was made on 6th June, 1934. Both Orders were confirmed by the Ministry of Health on 13th February, 1935, with the variation that No. 57 College Street was excluded from the Clearance Order. The remainder of the properties in the Area belong to the Corporation.

The premises included in this Area were :—

Clearance Order :—

Nos. 1 and 2, Court No. 3, Crab Street ;
No. 57, College Street.

Compulsory Purchase Order :—

Nos. 59, 61, 63, 61 Back, 67, 69, 71, 71A, 73, and 75, College Street.

Corporation properties :—

Nos. 1, 3, 6, 7, 8, 9, 10, and 11, Court No. 2, Crab Street ;

Nos. 15 and 16, Back Crab Street ;

Nos. 5, 7, 9, 11, 13, and 15, Crab Street ;

No. 2, Court No. 1, Crab Street ;

Nos. 65, 77, 79, and 81, College Street ;

A two storey brick built structure now disused but formerly used as a workshop and situate in front of and back-to-back with the house Nod. 3, Court No. 2, Crab Street ;

A two storey brick built structure formerly used as a dwelling-house and Nod. 1, Court No. 1, Crab Street, the lower portion of which is now used as a wash-house and store room, and the upper portion of which is disused.

A brick built disused pail closet structure situate in Court No. 1, Crab Street, and abutting on Crab Street—one of a block of six ;

Partly demolished brick structure adjoining the pantry structure of 81 College Street and formerly the pantry structure of No. 83 College Street—now demolished ;

Two brick built disused pail closets situate in front of the house Nod. 11, Court No. 2, Crab Street ;

A brick built disused pail closet structure situate at the rear of No. 6, Court No. 2, Crab Street.

Sherdley Road Area—Official Representation of this area which contained three houses was made on 27th March, 1934, and a Clearance Order was made by the Council on 6th June, 1934, and confirmed by the Ministry on 13th February, 1935.

The properties included were Nos. 1, 3, and 5, Sherdley Road.

Duke Street Area—Official Representation was made on 27th March, 1934, and Clearance Order was made on 6th June, 1934, and confirmed on 13th February, 1935. No. of dwellinghouses 8. The properties included were Nos. 132 and 134 Duke Street ; Nos. 1 and 2, Court No. 5, Duke Street ; Nos. 138, 140, 142, and 144, Duke Street.

Back Marshalls Cross Road Area—Official Representation made on 27th March, 1934, and Clearance Order made on 6th June, 1934, and confirmed on 27th November, 1934. No. of dwelling-houses 6.

The properties included were Nos. 1, 3, 5, 7, 9, and 11 Back Marshalls Cross Road.

Duke Street (Court No. 3) Area—Official Representation made on 27th March, 1934, and Clearance Order made on 6th June, 1934, and confirmed on 27th November, 1934. No. of dwelling-houses 9.

The properties included were Nos. 2, 3, 4, 5, 6, 7, 8, 9, and 10, Court No. 3, Duke Street.

Crab Street Area—Official Representation made on 27th March, 1934, and Clearance Order made on 6th June, 1934, and confirmed on 27th November, 1934. No. of dwellinghouses 3. The properties included were Nos. 6, 8 and 10 Crab Street.

Parr Street Area—Official Representation made on 21st December, 1934, and Clearance Order made on 6th March, 1935. Confirmation not yet received. No. of dwellinghouses 3.

The properties included were Nos. 106, 108 and 110 Parr Street.

Tickle Street Area—Official Representation made on 21st December, 1934, and Clearance Order made on 6th March, 1935. Confirmation not yet received. No. of dwellinghouses 5.

The properties included were Nos. 13, 15, 17, 19 and 21 Tickle Street.

Clarence Street Area—Official Representation made on 21st December, 1934, and Clearance Order made on 6th March, 1935. Confirmation not yet received. No. of dwellinghouses 6.

The properties included were Nos. 33 Carter Street ; 35 Carter Street, and 1 Clarence Street ; Nos. 3, 5, 7, and 9 Clarence Street.

Pocket Nook Street Area—Official Representation made on 21st December, 1934, and Clearance Order made on 6th March, 1935. A Public Inquiry was held on 2nd May, 1935, but result of inquiry not yet received. No. of dwellinghouses 5.

The properties included were Nos. 2 and 4 Wood Street ; Nos. 61, 63, and 63A Pocket Nook Street.

Merton Bank Road Area—Official Representation made on 21st December, 1934, and Clearance Order made on 6th March, 1935. A Public Inquiry was held on 2nd May, 1935, but result of inquiry not yet received. No. of dwellinghouses 10. The properties included were Nos. 160, 162, 164, 166, 168, 170, 172, 174, 176, and 178 Merton Bank Road.

Individual Unfit Houses.—Official Representations under Section 19 of the Act were made regarding the following Individual Unfit Houses on 27th March, 1934, and Demolition Orders were made on 7th May, 1934.

No. 3, Court No. 5, Crab Street.

No. 4, Court No. 5, Crab Street.

1 Back Victoria Street.

2 Back Victoria Street.

37 Back Watery Lane.

39 Back Watery Lane.

Back-to-Back Houses.—Official Representations under Section 19 of the Act were made regarding the following back-to-back houses on 21st December, 1934. In all cases undertakings to convert the premises into through houses were accepted by the Council.

7 Front and Back Brown Street.

125 Front and Back Chancery Lane.

127 Front and Back Chancery Lane.

43 Front and Back Tickle Street.

38 Front and Back Traverse Street.

8 Front and Back Ashcroft Street.

91 Front and Back Ashcroft Street.

83 Front and Back Ashcroft Street.

68 Front and Back Higher Parr Street.

76 Front and Back Higher Parr Street.

110 Front and Back Higher Parr Street.

70 Front and Back Park Road.

101 Front and Back Park Road.

248 Front and Back Park Road.
 306 Front and Back Park Road.
 316 Front and Back Park Road.
 320 Front and Back Park Road.
 326 Front and Back Park Road.
 141 Front and Back Peasley Cross Lane.
 10 Front and Back Marshalls Cross Road.
 4 Front and Back Merton Bank Road.
 6 Front and Back Merton Bank Road.
 46 Front and Back Dudley Street.
 48 Front and Back Dudley Street.
 50 Front and Back Dudley Street.
 52 Front and Back Dudley Street.

Re-housing.—For the re-housing of persons to be displaced from dwellinghouses dealt with under the Housing Act, 1930, the sites allocated up to the end of the year were the following :—

Name of Site	Numbers and Types of Houses to be erected				Providing accommodation for
	2-bedroomed	3-bedroomed	4-bedroomed	Total	
Hardshaw Brook Site Z	6	20	6	32	166 persons
Rivington Road Site 30.....	18	40	2	60	286 persons
Gaskell Street Site 31	20	38	8	66	326 persons
Virgil Street Site 35	—	2	—	2	10 persons

These sites provide accommodation for 788 persons in 160 houses. From the commencement of re-housing under slum clearance schemes to the end of the year 216 persons had been re-housed in 46 houses.

Disinfestation of Furniture and Household Effects.—In all cases where re-housing takes place from premises dealt with under the Housing Act, 1930, furniture and household effects are subjected to fumigation by Hydrocyanic Gas before removal into the new houses, and the bedding is subjected to steam disinfection at the Isolation Hospital.

Survey of Added Areas.—During the year a Housing Survey was undertaken of that part of the borough recently taken over from the Whiston Rural District Council. As a result of this survey it is proposed that one area consisting of five houses be dealt with by means of a clearance scheme and that two individual unfit houses be dealt with under Section 19. These proposals have been approved by the Council and submitted to the Ministry.

RE-CONDITIONING.—The progress made during the year in the repair and reconditioning of unfit houses has been well maintained.

OVERCROWDING.—So far as St. Helens is concerned the most serious problem in connection with housing is that of overcrowding. The Census Return for 1931 showed the serious amount of overcrowding at the time of the Census, and frequent investigations of complaints and inspection of dwellings by the sanitary staff and health visitors suggest that since then there has been little, if any, improvement. It is hoped that with the passing of the new Housing Act it will be possible to do something effective to remedy this evil.

XVI.—HEALTH EDUCATION.

Throughout the year poster frames taken over from the Empire Marketing Board have been used for the display of posters arranged by the Central Council for Health Education. Many of the posters have been designed by the national associations actively employed in health propaganda and they provide a very striking means of keeping health subjects constantly before the public. The posters are changed monthly.

Through the courtesy of the British Dental Board, lectures on the care of teeth were given in November, 1934, to the children attending 45 senior departments of the Public Elementary Schools. Short talks are also given regularly by the Council's own staff to mothers and expectant mothers attending the various clinics under the maternity and child welfare service, and considerable use is made of the pamphlets, posters, etc., issued by the various health organisations.

APPENDIX 1.

Report by the Medical Officer of Health on the Maternity Services of the Council with special reference to possible expansion if required.

(Submitted to the Maternity and Child Welfare Committee on the 12th December, 1934).

The Committee will remember that following the issue by the Ministry of Health of a memorandum (Memo. 156/MCW) dealing with maternity services, I submitted in July, 1931, a report reviewing in the light of that memorandum, the services provided in St. Helens.

Since that report the most important extensions of the services have been :—

- (a) the opening of an ante-natal clinic in the Parr district ;
- (b) the supply of sterilised maternity outfits ; and
- (c) the establishment of a gynaecological clinic.

One suggestion contained in that report—namely, the provision of hostel accommodation for children under 5 years of age whilst the mother is in hospital—has been under consideration on several occasions, but only recently have suitable premises become available.

The Ministry of Health have now issued a circular letter (Circular 1433, dated 10th October, 1934) calling attention to the continued high rate of maternal mortality throughout the country and asking for reports :—

“ showing to what extent effect has already been given to the
 “ suggestions made in the memorandum, and in the Recom-
 “ mendations of the Maternal Mortality Committee in their

“ Final Report in 1932, for, (1) improving the ante-natal service ;
 “ (2) ensuring that the services of a trained midwife are available
 “ for all confinements ; (3) securing the provision of maternity
 “ beds for complicated cases and for patients with unsuitable
 “ home conditions, such beds to be associated where practicable
 “ with general hospitals, preferably in small units readily
 “ supervised, and for which prompt specialist services for serious
 “ cases may be made available ; (4) providing facilities for the
 “ adequate isolation and separate nursing of cases of puerperal
 “ sepsis ; and (5) obtaining the services of a consultant for
 “ doctors needing assistance in difficult or complicated cases.”

Before proceeding to discuss what is being done and what improvements might be made in the Maternity Services in St. Helens, it might be useful to know what the maternal death rate is in St. Helens, how it has altered over a period of years and how it compares with the country generally. Table A shows the Maternal Mortality in St. Helens since 1911, compared with that for England and Wales during the same period. It will be seen that taking the average over a period of years the maternal mortality rate for St. Helens approaches very closely to that of England and Wales as a whole. Like that for England and Wales, however, it has not shown any marked diminution in the last 20 years. It will be seen from the Table that yearly variations are sometimes considerable in St. Helens. This is to be expected, however, as the number of cases on which the yearly rate is calculated is never very large, and small increases or decreases in the number of deaths are reflected by appreciable variation in the death rate. An interesting point shown in the Table is the persistent low mortality from Puerperal Sepsis during the past 3 years.

Dealing now with the five maternity services to which the Minister in his latest circular draws particular attention, the following shows what is being done in St. Helens and what alterations, if any, might be made in these services.

Table A.
Maternal Mortality.

Year	ENGLAND AND WALES			ST. HELENS		
	Rates per 1,000 Live Births			Rates per 1,000 Live Births		
	Puerperal Sepsis	Other Puerperal Causes	Total Puerperal Mortality	Puerperal Sepsis	Other Puerperal Causes	Total Puerperal Mortality
1911	1.43	2.44	3.87	1.23	1.85	3.08
1912	1.39	2.59	3.98	0.64	1.27	1.91
1913	1.26	2.70	3.96	—	2.81	2.81
1914	1.55	2.62	4.17	2.38	2.68	5.06
1915	1.47	2.71	4.18	1.01	4.38	5.39
1916	1.38	2.74	4.12	0.38	3.08	3.46
1917	1.31	2.58	3.89	0.90	3.61	4.51
1918	1.28	2.51	3.79	2.05	3.29	5.34
1919	1.67	2.70	4.37	2.98	3.72	6.7
1920	1.81	2.52	4.33	1.8	3.3	5.1
Average for years 1911/20	1.46	2.61	4.07	1.3	3.0	4.3
1921	1.38	2.54	3.92	1.96	2.94	4.9
1922	1.39	2.44	3.81	1.42	2.49	3.91
1923	1.30	2.52	3.82	0.38	0.76	1.14
1924	1.39	2.51	3.90	1.9	4.57	6.47
1925	1.56	2.52	4.08	2.66	2.66	5.32
1926	1.60	2.52	4.12	1.95	2.34	4.29
1927	1.57	2.54	4.11	2.54	0.85	3.39
1928	1.79	2.63	4.42	1.66	2.91	4.57
1929	1.80	2.53	4.33	3.1	2.65	5.75
1930	1.92	2.48	4.40	2.13	2.99	5.12
Average for years 1921/30	1.57	2.52	4.09	1.97	2.52	4.5
1931	1.66	2.45	4.11	0.92	2.29	3.21
1932	1.61	2.60	4.21	0.93	3.24	4.17
1933	1.83	2.68	4.51	0.52	5.15	5.67
Average for years 1931/33	1.7	2.58	4.28	0.79	3.56	4.35

1.—Ante-natal Service.—There are now six ante-natal clinics weekly. Two of these are held at the Town Hall, and one each at Sutton, Sutton Manor, Thatto Heath, and Parr. The latter was opened during the current year for the Parr and Derbyshire Hill districts. This means that there is now an ante-natal clinic for each of the outlying districts, and with the two clinics held at the Town Hall, these should be sufficient for immediate needs. The services of the Council's Consultant Obstetrician are available at the discretion of the Medical Officer in charge of the clinic, and at the clinics arrangements are made for hospital accommodation if required. Those who decide to have the confinement at home are urged to book their midwife, and if there be any abnormality a note is sent to the midwife. During 1933 the number of mothers who attended these or other of the Council's clinics for ante-natal care represented 50% of the total notified (live and still) births.

In addition to the Council's ante-natal clinic, ante-natal supervision is carried out by the Sister in charge of the maternity block at the St. Helens Hospital of cases who have booked for their confinement in that hospital. It is doubtful however, if this increases appreciably the percentage of expectant mothers under ante-natal supervision as many of the St. Helens Hospital cases attend the Council's ante-natal clinic prior to booking at that hospital.

Apart from the work at the Council's clinics and at the St. Helens Hospital, the amount of ante-natal supervision carried out in St. Helens is very small. Most medical practitioners, no doubt, give some ante-natal care to their booked cases, but the number of cases who definitely book a doctor to attend is very small indeed. In regard to midwives' cases it must be confessed that the majority of midwives do not like undertaking ante-natal supervision, and there is a tendency to accept the booking only late on in the pregnancy. They are encouraged, therefore, to send their cases to the ante-natal clinics and in fact many cases attending these clinics are sent by midwives. A detailed report is always sent to the midwife after the first visit, and further reports as occasion requires.

To extend ante-natal care to more mothers appears, therefore, to be a question of increasing attendances at the Council's clinics. How can this best be done? Education is, of course, the chief factor. This is done by means of our Health Weeks and special meetings for mothers during these Weeks, and by lectures to mothers' meetings and other social societies. One of the chief factors in education, however, must remain the influence of the health visitor in the home. In connection with the health visitors' work in recent years, however, there has crept in a gap between the visit of the health visitor and the actual obtaining of the necessary ante-natal supervision by the expectant mother. With the appointment, now sanctioned, of a Superintendent Health Visitor, more efficient following-up of the expectant mother will be obtained. A further step in ensuring ante-natal supervision would be in the control of payments made by the Council to midwives. At present the Council pay the midwife's fee in necessitous cases, and I would suggest it be made a condition of such payment that reasonable ante-natal care had been obtained by the mother prior to the confinement.

Connected with ante-natal care there is also the necessity for the provision of ante-natal beds for such cases as albuminuria, heart disease, &c. At present these are admitted, as occasion demands, to the Council's Maternity Hospital. During 1933 there were 25 admissions previous to labour for these reasons, but with the increasing call on the beds in that hospital for confinement cases, it is not always easy to arrange for their admission. This point will be referred to again in discussing hospital accommodation.

2.—Provision of Midwives.—Though no district midwives are directly employed or subsidised by the Council the whole, or part, of the fee of the midwife in attendance is paid where the patient is unable to do so by reason of poverty. This service has increased very considerably in recent years and appears to be still increasing, mainly owing to the large number of persons coming out of insurance benefit. During 1933, the whole, or part, of the midwife's fee was

paid in 67 instances. The fact that the Council do pay is so well known that no mother in St. Helens need lack a midwife—and to the credit of the midwives, I have never known one refuse to go. I think however, that in future the payment of these fees should—except in cases of emergency—be made conditional on the mother having received satisfactory ante-natal care.

3.—Maternity Beds.—During the past few years the preference of mothers for confinement in hospitals or nursing homes has increased very considerably and appears to be still increasing. In Table B is shown the place of confinement of all births notified since the beginning of 1931. From that table it will be seen that the percentage of confinements in hospitals or private nursing homes increased from 26.4% in 1931 to 29.5% in 1933, and still further increased to 33.9% in the first six months of 1934. I still maintain that in a town like St. Helens, where approximately one half of the houses have only two bedrooms, and the density of persons per room at the 1931 Census was 1.13 persons, this is very desirable. For the purpose, the Council's new Maternity and Child Welfare Hospital opened in 1931 has provided a long felt want. The accommodation of 15 beds at that hospital is, however, already overtaxed, and though beds at the St. Helens Hospital are used by the Council when accommodation is not available at the Council's hospital, the accommodation at the St. Helens Hospital is required for their own subscribers. I would suggest, therefore, that the accommodation at the Council's Maternity and Child Welfare Hospital should be increased to 20 maternity beds. This would not only increase accommodation for maternity cases, but would also increase the hospital accommodation required—as I have previously mentioned—for ante-natal cases.

The Ministry advise that maternity beds should be associated, where practicable, with general hospitals so that the specialist services (including specialists other than obstetrical) of these hospitals may be promptly available if required. The only general hospitals in or near St. Helens are the two voluntary hospitals and Whiston Infirmary,

Table B.

Table showing the place of confinement in all live and still births notified in St. Helens during the years, 1931, 1932, 1933, and part of 1934.

Year 1	Total births and still births notified 2	Born in Hospital or Nursing Home				Born at Home		St. Helens babies born in Whiston 10
		St. Helens Corporation M. & C.W. Hospital 3	St. Helens Hospital 4	Private Nursing Home 5	Total 6	Percentage of total notified births 7	Number 8	Percentage of total notified births 9
1931	2307	183	322	105	610	26.4	1697	73.6
1932	2318	307	295	74	676	29.2	1642	70.8
1933	2146	342	233	58	633	29.5	1513	70.5
1934 (Jan. to June)	1137	202	152	32	386	33.9	751	66.1

which is outside the borough and is a Poor Law Institution of the Lancashire County Council. The only specialist visiting staff of the voluntary hospitals is a gynaecologist, an ophthalmic surgeon, a throat and nose surgeon, and (in one only) a consulting surgeon. At Whiston Infirmary there is an ophthalmic surgeon. Further, neither of the hospitals provide any service which cannot be supplied by one of the Council's services. I do not think, therefore, that any advantage would be gained in St. Helens by adoption of the Ministry's suggestion. In this connection I would further point out that the Council have appointed a Consultant Obstetrician and Gynaecologist for their Maternity Hospital, and that hospital is equipped for all major operations likely to be required in connection with maternity services. Further, if on occasion, other specialist services have been deemed desirable, there has never been any hesitation in obtaining them.

4.—Isolation of Cases of Puerperal Sepsis.—For these cases beds are available at the isolation hospital, and by arrangement with the District Nursing Association home nursing can be supplied on request. Table C shows the number of cases of Puerperal Fever and Puerperal Pyrexia notified each year during the last 5 years.

Table C.

Table showing the nursing provided for all cases of Puerperal Fever and Puerperal Pyrexia notified during the years 1929 to 1933.

Year	No. of cases notified	Treated in Peasley Cross Isolation Hospital	Treated in other hospitals	Nursed at home by the Nurses of the District Nursing Association
1929	41	22	—	2
1930	34	24	4	1
1931	15	13	—	2
1932	14	11	—	3
1933	14	10	1	3

It will be seen that in practically every case in recent years hospital treatment was obtained, and to this is probably attributable the low

death rate in St. Helens in recent years from Puerperal Sepsis (as shown in Table A). At the isolation hospital the services of the Council's consultant obstetrician are available, and arrangements are in operation for any laboratory examinations required, either from hospital cases or from cases treated by doctors at home. Supervision of midwives in regard to contact with these cases is very strict. They are suspended for 24 hours to allow disinfection of themselves and their appliances, and if the case does not go into hospital the district nurse takes it over.

5.—Consultant Services for General Practitioners.—

At the St. Helens Hospital, where the medical practitioners attend their own cases, the services of that hospital's consultant obstetrician are available, but there is at present no scheme whereby a doctor attending a case at home can obtain through the local authority the assistance of a consultant in difficult or complicated cases. As stated in my previous report, however, I consider that such cases are better in hospital, and with the amount of accommodation available there should be no difficulty in obtaining admission to hospital and obtaining the services of the hospital's consultant obstetrician.

Other Maternity Services.—Apart from those services specifically mentioned in the Ministry's Circular there are several other services which have for their object the making of motherhood safer.

(a) *Provision of Extra Nourishment.*—In St. Helens approximately 180 expectant or nursing mothers receive a supply of dried milk or chocolate milk weekly through the Maternity and Child Welfare centres. This is issued free or at a nominal rate of 6d. per lb., and annually approximately 9,500 lbs. are so issued. In addition, mothers in receipt of Poor Law Relief, are recommended to the Public Assistance Committee for the supply of extra nourishment (given usually in the form of fresh milk, eggs or meat), when, in the opinion of the Medical Officer in charge of the clinic, they are considered to be in need of it.

There is no doubt that during the recent lean years these services have done much to prevent the evil effects of under-nourishment. The question arises, however, as to whether they are sufficient. The giving of nourishment to be taken in the home is always open to the objection that the mother may not take it herself but give it to her children. Though this could be obviated by having centres for meals to mothers, this is impracticable in a scattered district like St. Helens. Furthermore, I do not think the objection is very serious. The mere fact that extra nourishment is going into the home means something extra for the mother, even if not in the form issued. The present system might, however, be extended by the issue in special cases, through the clinics, of eggs and /or meat, when these cannot be obtained from the Public Assistance Committee. An expenditure of £200—£300 on this annually would, I am sure, be of great benefit.

(b) *Sterilised Maternity Outfits*.—With the object of reducing the risk of puerperal sepsis in mothers confined in their own homes, sterile maternity outfits containing the necessary swabs, pads, etc., are available at the low cost of 3/-. This service was commenced in December, 1931, and though the outfits can be purchased by means of weekly payments, very little use is made of the service. Only 9 outfits were sold during 1933 and 30 have been sold during the current year. The chief objection appears to be the cost, and though the present price is less than cost price, I would suggest it be reduced to 1/6. In addition to these sterilised outfits, maternity bags containing sheets, nightgowns, baby clothing, &c., are available on loan and were issued to 20 cases during 1933.

(c) *Hostel for Toddlers*.—Difficulty is frequently met in persuading mothers to go into hospital, owing to their anxiety regarding young children left at home. The serious consequences that may result cannot be better exemplified than in the following unfortunate case :

“ a mother who died from primary pneumonia had persistently been advised to go into hospital for rest, owing to the failing

compensation of her heart, due to mitral stenosis. Twice she promised to do so, but when the ambulance arrived she refused to leave her home, as there was nobody to care for her children in her absence, with the result that her life was literally thrown away ”.

The difficulty could be overcome by the provision by the Council of a temporary house-keeper, but I am not satisfied that this would not lead to family dissension, and probably more anxiety to the mother. In my opinion a much better scheme would be the provision of a hostel where these children would be maintained either by day only or completely until the mother leaves hospital. As reported previously to the Committee, this provision could be combined with a nursery for infants at present in Poor Law Institutions (and who should be removed from such Institutions), and, if also combined with the care of those children at present admitted to the Council's Maternity and Child Welfare Hospital for correction of dietetic errors only, would form a very useful adjunct to that hospital and permit an increase in the number of beds for ante-natal and maternity cases.

(d) *Gynaecological Clinic*.—A special gynaecological clinic where advice and treatment is given to women suffering from diseases or disablements associated with child-bearing has been open since October, 1931. To this clinic are also referred cases requiring post-natal supervision. During 1933, 62 cases attended and the number is increasing rapidly. Cases are referred, when necessary, to the Council's Consultant Gynaecologist, and hospital treatment is arranged if required.

At this clinic, instruction in birth control methods is given when, in the opinion of the Medical Officer in charge, further pregnancies would be seriously detrimental to the health of the patient.

(e) *Dental Treatment*.—For several years dental treatment has been provided for mothers unable to obtain the necessary treatment elsewhere. The bulk of the treatment has consisted in extracting the worst teeth, though in a few, complete extractions have been carried out and dentures supplied. No charge is made for extractions, but dentures are charged at cost price.

This service has never been an organised part of the maternity scheme, but rather an emergency treatment. As suggested in my previous report I think it should be definitely adopted as one of the maternity services and gradually expanded. Extraction should, I think, still be free and a scale of fees for the recovery of the cost of dentures arranged. With this service as with other medical services, there is still, however, some overlapping with the services of the Public Assistance Committee, despite the fact that in the Council's Administrative Scheme under the Local Government Act, 1929, it was stated that—

“the functions of the Public Assistance Committee in so far as they relate to the medical and surgical care of the sick poor shall be discharged on behalf of and subject to the general direction and control of the Public Assistance Committee by the Health Committee.”

This overlapping does not lead to easy administration.

Conclusion.—It is satisfactory to note that—though yearly fluctuations may be considerable—taken over a period of years the maternal death rate in St. Helens compares quite favourably with the rate for the country as a whole. This does not, however, make any less necessary the need for further efforts in the saving of these lives. As a whole the services provided by the Council are good—but they can never be complete. Improvement and expansion must go on all the time if progress is to be maintained, and I have tried to indicate in the above report the lines along which further improvement might usefully be made.

Following consideration of the above Report the Maternity and Child Welfare Committee passed the following resolutions :

At a meeting held on the 12th December, 1934.

“ Resolved—

(a) that the question of the adaptation of “ The Gables ”, Cowley Hill, for combined use—

(i) as a hostel for children under five years of age whilst the mother is in hospital ;

- (ii) as a nursery for children at present in the nurseries of the Poor Law Institutions ; and
 - (iii) for the care of children at present admitted to the Maternity and Child Welfare Hospital for correction of dietetic errors only ;
- be referred to the Maternity Hospital Sub-Committee for consideration and report ;
- (b) that the question of increasing the number of maternity beds at the Maternity and Child Welfare Hospital from fifteen to twenty in the event of more accommodation being available as a result of the transfer of children from the Hospital, and of application being made to the Central Midwives' Board for recognition of the Hospital as a training school for midwives, be also referred to the Maternity Hospital Sub-Committee for consideration and report ;
 - (c) that the payment of midwives' fees in necessitous cases be, except in emergency cases, conditional upon the mother having received satisfactory ante-natal care ;
 - (d) that for a period of six months from the 1st January next, the Medical Officer of Health be authorised to provide extra nourishment by way of meat or eggs to nursing and expectant mothers in such cases as he considers such extra nourishment necessary, and that he report at the end of such period as to the operation of the scheme ; and
 - (e) that the cost of sterilized maternity outfits, available with the object of reducing the risk of puerperal sepsis in mothers confined in their own homes, be reduced from 3/- to 1/6 per outfit."

At a Meeting held on the 9th January, 1935.

" Referring to minute No. 54(a) of the Maternity and Child Welfare Committee on the 12th December, 1934, it was

- (3) Resolved that the Maternity and Child Welfare Committee be recommended to approve the scheme outlined in that minute for the adaptation of " The Gables ", Cowley Hill, for accommodation for children, and to ask the Ministry of Health to sanction a loan of £3,000 for the purpose of purchase, adaptation and furnishing."

APPENDIX 2.

Some notes by the Medical Officer of Health on the progress of Public Health in St. Helens during the past 25 years.

Presented to the St. Helens Town Council, 7th June, 1935.

During the last 25 years there has been a great change in what are commonly known as the Public Health Services. Previous to 1910 these services were mainly concerned with environmental and communal conditions, that is, the general sanitary condition of the town, food supplies and the control of infectious diseases. During the past 25 years, however, though environmental conditions have not been neglected and still further improvements have been made in connection with them, more attention has been paid to what might be called the personal health services, that is, the health of the individuals of the community rather than the health of the community as a whole.

The first step in this direction was taken in 1908 when the medical inspection of school children first commenced. From small beginnings this service has gradually expanded until now, not only do the children come under regular medical inspection, but there has been made available, through the school medical service in St. Helens, free treatment for all who could not otherwise obtain it, thus ensuring that as far as possible a child, when it leaves school, shall be fit and healthy. These treatment services now also include specialist treatment for such conditions as eye defects, ear, nose and throat defects, teeth and orthopaedic defects. In recent years also, district clinics for both minor ailments and dental defects have been opened in the outlying districts. During the year 1934, 13,573 children received treatment under these services, including 4,034 for minor ailments, 717 for visual defects, 259 for ear, nose and throat defects, 7,176 for dental defects, and 332 for orthopaedic defects. In recent years one of the greatest advances in the care of the school child has been the opening of the Hamblett Open-Air Council School. At that school the weakly and debilitated child, the child who formerly attended school very indifferently, and owing to the state of its health

gained little benefit from such attendance, now thrives both physically and educationally under the regime of regular and proper feeding and the beneficial effects of the open air life.

Parallel with the development of the school medical service there has also been developed the service for the feeding of school children ; a most important factor in maintaining the health of the school child. During 1934, 641,955 meals were provided for school children.

The next step in the personal services was the inauguration and development of special schemes for combating Tuberculosis. This commenced in 1912 with the bringing into force of the compulsory notification of tuberculosis. Arising therefrom there naturally followed the question of treatment of the cases notified. The tuberculosis service in St. Helens commenced in 1913 with the establishment of the Tuberculosis Dispensary for the giving of general advice to, and general supervision of, cases of tuberculosis living at home, and with the opening of the Eccleston Hall Sanatorium for the treatment of cases requiring sanatorium treatment. In recent years this service also has expanded enormously and now takes practically the whole time of one medical officer. With the passage of time, improvements in this service have also taken place and there is now available a service capable, not only of supplying the necessary treatment for the tuberculous patient, but also complete with all modern methods for diagnosis in doubtful cases. In St. Helens the death rate from tuberculosis has dropped from 15.29 per 10,000 of the population in 1912 to 8.80 in 1934. It is interesting to note, however, that the decrease in mortality has been mainly in non-pulmonary tuberculosis. For example, the pulmonary death rate which was 9.27 in 1912 fell to 6.67 in 1934, whereas the non-pulmonary death rate which was 6.02 in 1912 fell to 2.13 in 1934. Although part of this decrease in the non-pulmonary type of disease might be attributable to the tuberculosis service leading to earlier diagnosis and better treatment, there is no doubt that a considerable amount of the decrease is attributable to the great improvement that has taken place in the milk supplies.

One of the most important and now one of the biggest personal health services which has developed in recent years is the maternity and child welfare service. In a small way this commenced as far back as 1899 with the opening of the Infant Milk Depot and the appointment of an Infant Welfare Visitor, but the real development of this service dates from the passing of the Maternity and Child Welfare Act in 1918. St. Helens was quick to take advantage of the facilities afforded by that Act and, with the opening of consultation clinics for the mothers and children, the development of the health visiting service, the provision of extra nourishment for necessitous mothers and children, the provision of maternity beds for cases requiring hospital treatment and for cases where conditions for confinement at home were unsuitable, the payment of doctors called in by midwives, and the provision of hospital accommodation for ailing and debilitated children, laid the foundation of a maternity and child welfare service in St. Helens, of which the town should be proud. Since that time great expansions in this service have taken place until now there are weekly, 9 clinics for infant consultation, 5 ante-natal clinics where the supervision of mothers during pregnancy is undertaken and, when necessary, consultative services are available, a gynaecological clinic for dealing with diseases and disablements arising out of childbirth, an artificial sunlight clinic for ailing and debilitated children and an orthopaedic clinic for the crippling defects. In addition, services are available for the treatment of minor ailments and dental defects in both mothers and children. In recent years the hospital arrangements for maternity cases have received considerable attention, and in 1931 the Council's Maternity and Child Welfare Hospital, Cowley Hill, was opened. At that hospital 488 maternity cases were dealt with during 1934, which, with the 338 cases confined at the St. Helens Hospital means that approximately 36% of the pregnant mothers during that year were able to obtain, in an institution, that care and attention which it is impossible to get at home. It is also worthy of note that approximately 64% of the children born in St. Helens now attend infant welfare

centres and approximately 40% of the expectant mothers attend the ante-natal clinics for general supervision and advice during their pregnancy. As the nutrition of the mother and child plays a most important part in infant welfare, the amount of extra nourishment distributed free or at less than cost price is considerable. Approximately 14 tons of dried milk and cocoa milk are distributed annually, and in addition arrangements are in force for the supply of meat and eggs in special cases.

The following figures relating to 1934 give some idea of the present extent of the Council's Maternity and Child Welfare services :

Attendances of children at Infant Welfare Centres.....	30,098
Attendances of expectant mothers at Ante-natal Clinics.....	5,394
Attendances at Gynaecological Clinic.....	522
Attendances at Artificial Sunlight Clinic.....	1,988
Visits paid by Health Visitors.....	40,019

The beneficial effect of this service in saving of infant lives has been enormous. 25 years ago the average number of children who died before they were 1 year old was 141 out of every 1,000 born ; in 1934 the number was only 65.

Another of the personal services inaugurated in recent years was the Venereal Diseases Treatment Centre opened in 1917. This service, though necessary for a much smaller number of the population, is of the greatest value. It has made available for everyone unfortunate enough to contract one of those dread diseases, treatment which can really cure, and has abolished the old quack remedies which, by giving false cures and a false sense of security have led to much misery in the past and the passing on of the taint to the innocent child.

The fourth big development in the personal services has been in connection with the blind, and has been more in the form of a social service. With the passing of the Blind Persons Act in 1920, it became the duty of the Council to make special arrangements for

the welfare of the blind members of the population. This they now do in co-operation with the local Voluntary Association, and there has developed a service whereby every blind member of the community is ensured a brighter and a fuller life amongst his fellow citizens. Those capable of being trained are trained in trades for which local employment can be found. A workshop has been established where the blind worker can find employment under circumstances specially adapted for him. Monetary grants are made to the unemployable to ensure a reasonable standard of living, and their general social welfare is maintained through the various social activities of the Voluntary Society. That this service has been of great benefit to the blind community may, perhaps, be gauged by the direct cash benefits which they received during 1934. During the year ended 31st March, 1935, there were 216 persons on the Blind Register in St. Helens, and in cash benefits they received the following sums :—

	£
Wages paid to Blind Employees	915
Augmentation of Wages of Blind Employees	1239
Augmentation of earnings of home-workers	195
Grants to necessitous blind, including	
dependents' allowances	3281
Holidays and sickness allowances	109
Total	<u>£5739</u>

Though the past 25 years have been mainly notable for the development of the personal side of public health, the environmental side has not been neglected. On the sanitary side one of the most important improvements has been the gradual conversion of the old insanitary privy midden and pail closet to the water carriage system. In 1910 there were 4714 privy middens and 7071 pail closets ; at the end of 1934 there were only 446 privy middens and 175 pail closets still existing. The conversion scheme together with the covering in of the Windle Brook has been the means of practically abolishing Typhoid Fever in the town. In the 5 years 1906-1910,

65 deaths occurred from this disease, in the 5 years 1930-1934 only 4 deaths occurred. In addition to the improvement due to the removal of the old privies and pail closets there has also been a great improvement in what might be termed general sanitary conditions, e.g., ashpits have been replaced by bins, old middensteads have been abolished, stricter supervision is kept on the keeping of animals, more attention has been paid to housing conditions, and generally the town is in a cleaner and more sanitary condition. The effect of this is reflected in what are known as "diarrhoea" deaths. Infantile diarrhoea, at one time a most fatal scourge during hot weather, is now non-existent. In 1911, 143 children under 2 years of age died from this cause, whereas in 1934 the deaths due to diarrhoea were only 9 and these were mainly cases of diarrhoea associated with other gastric or intestinal trouble.

In the supervision of food supplies, one of the most important improvements has been in the milk supplies of the town. Stricter supervision of the cattle with the immediate slaughter of animals affected with tuberculosis has lessened the risk of infection of the child with tubercle from the milk supply. Improved conditions at the farm and cleaner methods of production as a result of clean milk competitions have led to a cleaner and safer milk. Methods of distribution have also been greatly improved, so that the milk the consumer now gets is an article of greater purity than it was 25 years ago, and that standard of purity is now being maintained and even improved on by constant sampling by the sanitary authorities.

Other foods have not been neglected. In their last local Act the Council have obtained much greater powers in the supervision of places where cooked and preserved foods are prepared for sale to the public, and in the manufacture and sale of ice-cream. The better control of these popular foods will enable the consumer to get a purer and a safer article.

There have been many other improvements in environmental public health during the past 25 years, but it is impossible to mention

them all—a great many of them are simply the application of newer ideas to old problems and the Council have ever adopted the progressive policy. In more recent years the most outstanding event has been the tackling of the slum problem. During the 5 years ending 1938 it is hoped to demolish 261 houses which are at present unfit for human habitation and to convert all the back-to-back houses in St. Helens (110 in number) into through houses. This will mean the re-housing by the Council of 1,422 persons. The programme is now well advanced. Orders for the demolition of 169 houses have now been made, Orders in respect of a further 29 are now awaiting confirmation, and the first steps have been taken for dealing with a further 35 houses.

In addition to slum clearance, a great deal of work has been done in recent years in the repair of houses. During the past 5 years approximately 11,000 houses have been rendered fit in consequence of informal action by the local authority through their sanitary department.

The question naturally arises as to what has been the benefit of all these activities. The decrease in mortality from tuberculosis, typhoid and other diarrhoeal diseases, and the saving in infant lives has already been mentioned. The most useful index of the health of the community is, however, the general death rate, i.e., the number of persons who die in each year in each 1,000 of the population. In the 5 years, 1911-1915, the average death rate was 17.8 per 1,000 of the population ; in 1934 the rate was 10.6 per 1,000 of the population. With a population of over 108,000 this means a saving of approximately 780 lives each year in St. Helens.
